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The Beattie-Smith Lectures.[1]

(THE UNIVERSITY OF MELBOURNE.)

WHITHER PSYCHIATRY?

By H. F. MAUDSLEY,
Melbourne.

LECTURE II.

IN this lecture I should like to draw your attention to certain features of British and American psychiatry which perhaps do not appear in the medical literature of these countries, but which may present to you an idea of the trends towards which psychiatry is leaning.

That we in Australia are backward in psychiatric thought, literature, research, teaching and organization, nobody who has been abroad can have any doubt. Yet as regards our actual method of treating patients we are not so far behind.

Psychiatry in Britain.

Great Britain is in the throes of a national upheaval in medicine, the merits or demerits of which have no place for discussion in this lecture. Although the essential practice in psychiatric hospitals and units has not greatly altered since the introduction of the *National Health Act*, it is perhaps necessary to give you a brief sketch of the new organization for you to appreciate the conditions under which psychiatric work is being carried on.

The Ministry of Health has taken over all hospitals and clinics formerly financed by local councils and ratepayers, except the recognized teaching hospitals; this includes hospitals with paying beds, their property and endowments. Regional boards are appointed by the Government, and are responsible for the general administration of all hospitals in their geographical region. In regard to psychiatric hospitals and clinics, a Board of Control has been appointed for England and Wales and another for Scotland. The chairman and deputy chairman are both psychiatrists of high standing. On these boards are also representatives of business, the legal profession and social welfare work. Each hospital, however, is managed by a local committee appointed by the regional board, which has in most cases reappointed the former committees with perhaps one or two additions.

The teaching hospitals, general and psychiatric, have not been taken over by the Ministry of Health, and are also managed by their own committees of management. The psychiatric teaching centre in the London area is the combination of the Maudsley Hospital in South London, and Bethlehem, situated about 12 miles out of London at Monk Orchard, with Professor Aubrey Lewis as the chief administrator and organizer of general psychiatric teaching. The psychiatric clinics attached to the general hospitals are also teaching units. Under this new organization there is not a great deal of difference in the actual management of each hospital, though in the non-teaching hospitals there is a slight feeling of unrest as to promotions and appointments, which are now in the hands of the regional boards.

A great teaching centre such as the Maudsley Hospital needs little description, as it is the Mecca of psychiatrists from all over the world. It is situated on the outskirts of the most drab part of London. A tram or omnibus from Westminster Bridge, or tube to the Elephant and Castle, and then tram to Denmark Hill, will take you through seemingly miles of bombed and semi-bombed buildings past Camberwell Green to Denmark Hill. The Maudsley Hospital is opposite King's College Hospital, and it is advisable to ask the tram or bus conductor to drop you at King's College Hospital rather than at the locally less known Maudsley Hospital.

There is a large teaching and research staff at the somewhat unpretentious-looking building, and a great many

[1] Delivered at Melbourne on August 15 and 22, 1949.

men and women are learning, assisting and demonstrating and doing research work. Within the comparatively small confines, which enclose a relatively small number of beds, are not only adult patients, but research laboratories, out-patient departments, child guidance clinics and children's wards with play therapy, and every type of modern investigation is taking place. There is a large training school for psychiatric social workers, and a great number are doing post-graduate work in psychiatric social science. Psychiatric tests of all descriptions are being carried out, and considerable use is made of the Rorschach tests. This is a psychiatric world in itself, with a cosmopolitan atmosphere of its own.

There is another centre for psychiatric research in London, the Tavistock Clinic. During the war this was bombed out of its original site, and occupies a building of inadequate size in the heart of the West End. This is entirely an out-patient organization without beds, and is self-supporting. Although not officially recognized as a psychiatric teaching unit, the Tavistock Clinic has not been absorbed by the Ministry of Health. In actual fact the Tavistock Clinic is the teaching centre for post-graduate psychotherapy, and is carrying out extensive investigations in the fields of group therapy. Until recently there has been a schism between the Tavistock Clinic, with its entirely psychological approach, and the Maudsley Hospital, with its materialistic and perhaps more realistic approach to psychiatry. Some extremely distinguished men are associated with the Tavistock Clinic at present. Dr. Sutherland is the new director, and with him are Dr. Dicks and Dr. Jacques. This clinic is doing valuable research work on group therapy, as well as in individual psychotherapy. There is every evidence that gradual but steady welding is taking place between the two schools of psychiatric thought. On the whole, however, British medicine is not without its suspicion of psychiatry that has an almost entirely psychological approach to the emotional disorders.

Although the official teaching hospitals and clinics are the main centres for undergraduate and post-graduate teaching, every psychiatric hospital of any standing has its own post-graduate teaching programmes, and some of these hospitals are made use of by Professor Aubrey Lewis for undergraduate teaching. It is this intensified teaching in these hospitals which is attracting young graduates to the junior positions.

Practically every hospital has a fairly large permanent medical staff consisting of a physician, a superintendent, a deputy superintendent, two senior physicians and several junior physicians. Besides this there is provision for two or three junior house physicians, who are appointed for six months or a year with the option of continuing and making psychiatry their vocation. Many of these junior appointments are made use of by young graduates to learn something about psychiatry which will be of use to them in their future practice.

From inquiries made at the many hospitals visited, I found that Australian graduates would be welcome and would be given positions at one of these hospitals near London, and could take part in the teaching in these hospitals and in other special post-graduate classes at the Maudsley Hospital as well. There are many opportunities for Australian graduates interested in psychiatry to do post-graduate work.

In the hospitals that are not officially "teaching hospitals" there is a continuous syllabus of teaching throughout the year. This is directed by one of the senior physicians, and takes the form of clinical teaching rather than of didactic lectures. Staff conferences are held twice a week when one or perhaps two cases are thoroughly discussed. The sister of the ward, the psychiatric social worker and the occupational therapist all give their quota to the discussion, so that the case is discussed from every angle, and opinions are expressed regarding treatment and management. The chairman, who is one of the senior physicians, sums up the case after examining the patient and having heard the different points of view. I had the honour to be a chairman at similar conferences on several occasions both in England and in America, and it is a most interesting and instructive experience. At these discussions the case is often presented by one of the junior physicians or by the house physician. By means of this type of teaching, not only does the medical staff present gain knowledge, but the nursing staff, psychiatric social workers and occupational therapists obtain an insight into their work. It must be remembered that the diploma of psychological medicine is essential for any promotion, and a hospital where the teaching is good will attract the better type of junior, so that amongst the permanent staffs of the hospitals good teachers as well as good organizers obtain preference in senior appointments. These appointments carry consultant rank and are highly paid. In this way there is an all-round stimulus for both teachers and learners in all the psychiatric hospitals.

The training of psychiatric nurses is a feature of all psychiatric hospitals. Perhaps I may mention specifically Crighton Royal at Dumfries, where Matron Houliston, whose book on psychiatric nursing I can recommend, is in charge of the training school. Male and female nurses attend the same lectures and receive the same diplomas. Candidates for training are given psychological tests to find out their intellectual and emotional suitability for their course. Those with the higher grades of education and intellect are trained in such a way that they may later be ward sisters, and later still will be suitable for administrative positions. Those of lesser grade are trained to be excellent nurses, but are never likely to reach the higher grades of the nursing profession.

The amenities for the nursing staff in psychiatric hospitals generally are extremely good. The nursing quarters are most comfortable, with large sitting rooms and libraries and opportunities for outdoor sport. Nurses can entertain their friends in the quarters, and are encouraged to do so. Under such conditions there is very little shortage of nursing staff, and some hospitals have a waiting list of men and girls who wish to do their mental hospital training.

A feature of each regional psychiatric hospital is the system of out-patient clinics. Each hospital outside London draws its patients from a population of up to 700,000. Throughout this area several out-patient departments may be found, usually attached to a local hospital. There is always a child guidance clinic, as well as adult clinics. These clinics are staffed by the resident staff of the hospital, and the main link between patients and doctors is the psychiatric social worker. Occupational therapy is a feature of all the hospitals that I visited. The standard of training was of the highest level.

The importance of the psychiatric social workers cannot be over-estimated. Not only do these clinics act on the preventive side by having patients examined and treated in the early stages of their illness, but patients discharged from hospital are followed up and contact is kept with them in regard to their home life and their employment. This system of out-patient psychiatric clinics is a feature of both British and American psychiatry.

In England, owing to the efforts of Dr. C. P. Blacker, who reviewed the psychiatric situation in 1944, these clinics are to be found all over Great Britain. The psychiatric social worker is the important feature in this organization, and is in very great demand. It is somewhat shocking to realize that in the whole of Australia there are not more than half a dozen psychiatric social workers of whom proper use is being made. Psychiatry will not prosper here until this is rectified and a proper training school for psychiatric social workers established. It is generally agreed in England and America that a trained social worker, unless she is trained in psychiatry, is unable to play the necessary role with efficiency.

Perhaps one of the forces which have helped to improve and integrate British psychiatry is the Royal Medico-Psychological Association. I was privileged to attend its annual meeting in London last year; here frank and open discussions took place, led by leading psychiatrists, and the general theme was the improvement of psychiatry both inside and outside mental hospitals.

I should like to give you a hurried glimpse of some of the features of the good type of psychiatric hospitals which are to be seen all over England. To mention a few within 20 miles of London, Bethlehem, Netherne, Saint Ebbas,

Warlingham, Shenly, and Sutton Emergency Hospital (which merits special attention because of its concentration on the treatment of non-psychotic patients) are some of the few that I saw.

I should like to give you a short description of one of these hospitals of from 900 to 2500 beds. Many hospitals are housed in old buildings, except Bethlehem and Saint Ebbas, which are comparatively new and built on pavilion lines; but old buildings have been brought up to modern requirements. The grounds are, in all cases, beautifully laid out, and as you enter the grounds and see the buildings there is no suggestion of an institutional appearance. On entering the main building you are met by a smartly uniformed girl receptionist, who asks pleasantly and politely if she can help you in any way, and if you are a relation of a patient you are shown into a pleasantly furnished room.

At last year's annual meeting of the Royal Medico-Psychological Association, there was a discussion on this very question of courtesy and politeness to visitors and patients. It was generally agreed that a receptionist and a telephonist with a pleasant voice and pleasant manners played indirectly an essential part in the care and welfare of the patient by giving the relatives a feeling of confidence. I may say in passing that in all these hospitals that I visited, although there were extensive teaching and research activities, the welfare of the patient was always the very first consideration.

The wards themselves are mostly "open"—that is to say, the patient is free to walk about the grounds. I am told that very few attempt to escape, and suicides are few. Of course, there are certain types of patients who must be restrained; but it is remarkable the number of types of psychiatric patients for whom we might consider restriction of freedom necessary, who are free from the stigma of locked doors. It is possible that the inborn sense of discipline of the British people may be a factor in this self-discipline that keeps even the psychotic patient from breaking out.

A hospital such as the one I am describing has an operating theatre, a theatre staff and a visiting general surgeon, so that the ordinary surgical treatment that is inevitable where a number of individuals are gathered together is performed at the hospital without the necessity of moving the patient to a surgical hospital. As well as this the operating theatre is used for leucotomy. A neurosurgeon visits the hospital at intervals, and performs a leucotomy after the case has been thoroughly reviewed by the psychiatric staff.

The operating theatre accommodation is especially important at this time when the question of the operation of leucotomy for certain types of long-standing psychoses is ever being brought forward. In most hospitals a cerebral surgeon comes down from London and performs the operation when required. I wish to say a little more concerning this operation later on.

Propaganda regarding mental health and psychiatric hospitals is part of a hospital service in some parts of England. Netherne has appointed a woman, not especially trained in social science, whose whole work is to make it known, within the area from which patients are admitted, that mentally ill patients need have no hesitation in applying for advice. She takes relations of a prospective patient all over the hospital, the wards, the grounds, and shows them all the amenities—golf links, tennis courts, dance halls, picture theatres—and explains that though this is a special type of hospital the mentally ill are like any other patients, and there need be no stigma involved in seeking admission to a psychiatric hospital.

In a more extensive way this type of propaganda is used by Dr. Thomas Beaton and his co-workers at Portsmouth. Saint James' Hospital, with Dr. Beaton at its head, is an excellent example of a self-contained psychiatric service to the population of Portsmouth and surroundings —about 250,000. The hospital itself is on the outskirts of the city, but in the middle of the city are a social service bureau, a child guidance clinic, and an adult psychiatric out-patient department, all in one building.

There is a psychiatric social worker in charge of the bureau, and it is well known in Portsmouth that anybody can go into that office without formality, and without even giving his name, and seek advice regarding a mentally sick relative or some child behaviour problem. Dr. Beaton himself gives public lectures and wireless talks regarding mental health and the advisability of seeking early treatment. The consequence of this is that 90% of the patients admitted to Saint James' Hospital are voluntary patients. At this hospital I saw electro-narcosis extensively used. The technique used is safe, and they are cautious in the type of patient treated by this method. A blood pressure of 180 millimetres of mercury, systolic, or over, is a contraindication for this type of therapy. They claim good results in schizophrenia and in the types of depression that frequently occur. At this hospital insulin coma therapy has been discarded in favour of electro-narcosis. The great protagonists for electro-narcosis in London are Dr. Spencer Patterson, and Dr. Strauss at Saint Bartholomew's Hospital. In other parts of Britain and in many American clinics electro-narcosis is not regarded favourably, and is considered as yet in the experimental stage. Electro-convulsive therapy is used extensively in all hospitals that I visited, though there are certain modifications in the type of instruments used.

I should like to say a word or two about the Sutton Emergency Hospital, situated near Croydon. This hospital was used during the war as a neurosis centre for the services and as a general hospital for bombed civilians. It is now used as a neurosis centre, and is investigating the treatment of the neurotic generally under Dr. L. Minski. One particular piece of work being carried out by Dr. Maxwell Jones is on the interesting question of psychodrama, in which the patient enacts scenes from his childhood and early life. This is put in the form of a playlet, and nurses and doctors and perhaps other patients take parts. This drama is enacted on a stage before a large audience of the patients and staff. Dr. Maxwell Jones is the moving spirit and organizer of these playlets. After each incident in the drama suggestions and discussions are invited from the audience of patients, who are obviously intensely interested in the spectacle and visualize their own difficulties. This is, of course, a form of group therapy, the ultimate value of which Dr. Maxwell Jones himself is not prepared to estimate.

I have made little mention of one psychiatric clinic attached to the teaching hospital in London. The York Clinic attached to Guy's Hospital is associated with the name of the late Dr. R. D. Gillespie, who was its founder. Dr. R. Munro is its present director. The building is in the grounds of Guy's Hospital, though separate from the main hospital building; it contains 50 beds, some of them paying and intermediate. A large out-patient department also is attached. At the psychiatric clinic attached to Saint Thomas's Hospital, Dr. W. Sargeant has succeeded Dr. H. Yellowlees.

In the short space of time at my disposal it is impossible to give you more than the briefest outline of the direction in which research is being carried out in England. Although the Maudsley Hospital is practically the centre for research along physical lines, there are laboratories where research is being carried out in many parts of Great Britain. Perhaps some of the most striking research which is likely to bear fruit in the future is the study of the electric discharge from the brain by means of the electro-encephalogram. Normal and abnormal waves are being studied and brought into relationship with brain injury and with some forms of abnormal behaviour. Dennis Williams at the Maudsley Hospital, Golla and Grey Walter at the Burden Institute near Bristol, as well as many others both in England and America, are bringing this instrument to a greater degree of exactitude. Facts are being evaluated which may make for greater accuracy in what is now known as psycho-surgery, and the sites for the operation of leucotomy are likely to be more accurately mapped out than is the case at present. Anatomical studies are another field of research in relation to this operation.

Grey Walter, who knows as much about electronics as anybody in the world, not only considers that electro-encephalographic researches in relation to leucotomy are increasing the accuracy of sites of operation with different

behaviour problems, but he feels that methods of electrical stimulation of the brain may make it possible to block out the areas which are the cause of certain psychotic states.

It is pleasing to learn that Dr. G. Trahair, a Melbourne graduate working in Sydney, has been working with Walter and others and is carrying on electroencephalographic work. It is also pleasing to know that one of our own young psychiatrists has been sent by the Government at the Mental Hygiene Department's instigation to study the researches on electroencephalography that are being carried on. A machine has been also bought by the department.

At Crighton Royal, Mayer Gross and his co-workers are carrying out researches on the psychiatry and pathology of hyperglycæmia and studies on prefrontal leucotomy. At this hospital I met Dr. J. C. Raven, who is revising and extending the Raven matrix tests, and has been using this test for the determination of intellectual impairment in senility.

All over the world researches in psychological problems are collecting material and facts which will eventually fit into the jigsaw puzzle the facts collected and correlated by physical research.

Psychiatry in the United States of America.

From a brief but most interesting tour through the United States I was able to meet many of the leading psychiatrists, all of whom were extremely kind and most anxious to demonstrate everything in their various departments.

As in England, teaching and research are large features of all psychiatric clinics, and there is a close integration between medical and psychiatric undergraduate teaching. It was surprising to see the confidence and insight with which a final year student would present a case at a staff conference when members of the staff were present. This intensive teaching of psychiatry has the result of producing throughout the United States young physicians who have a leaning towards psychiatry. Dr. Alan Gregg and Dr. Robert Morison, of the Rockefeller Institute, are both examples of American trained physicians who have a strong bias in favour of psychiatry.

In America psychiatry has reached a very high standard of training and organization. There is a strong bias towards the psychoanalytic side of psychiatry, and at every teaching centre a large number of medical graduates are being psychoanalysed as part of their training; there are some who say that psychoanalysis is an essential part of the training of a psychiatrist. Many of the leading men that I met agreed that analysis was good training in psychopathology, and gave a psychiatrist an insight into his own difficulties and resistances. They were not altogether happy at the extensive "selling" of psychiatry to the American public to whom psychoanalysis is almost a cult. To illustrate the demand for psychiatry, the American Psychiatric Association has a membership of over 4000, which has been recently increasing at the rate of 300 to 500 each year.

Although there is this analytic bias, post-graduate training is extraordinarily thorough in all branches of psychiatry, and the physical side of psychiatry is fully stressed. Three years' concentrated training has to be undergone before a potential psychiatrist can sit for his diploma, which entitles him to be recognized as a psychiatrist. It is during that period that he takes the opportunity to be psychoanalysed, but this is not part of the training for the diploma.

Mention must be made of the enormous psychiatric organization of the Veterans' Administration, which is represented in Australia by the Repatriation Department. The Veterans' Administration has large hospitals and clinics in every large city in America, and there is an extensive training and teaching programme in psychiatry in these clinics. Dr. Daniel Blain, who is now the medical director of the American Psychiatric Association, is responsible for the organization of the psychiatric side of the Veterans' Administration.

In all the clinics that I visited, physical methods of treatment were regarded as just as essential in suitable cases as the psychological approach. Electric shock and insulin therapy with various modifications is in general use.

A modification of the operation of leucotomy is Walter Freeman's use of the transorbital route; he severs the frontal fibres by means of a pointed instrument with which he pierces the orbital plate and which he directs to the frontal lobes. Freeman is an expert neuro-anatomist, and in his hands the method appears to be safe. He claims good results from this operation, and I saw a series of his patients who appeared to have improved.

From a psychiatric point of view most interesting is the Menninger Clinic at Topeka, Kansas. This is a large foundation, handsomely endowed and organized by the Menninger Brothers, Karl and Will. This organization is in conjunction with a large Veterans' Administration hospital, which is mainly for psychiatric patients though there are some medical and surgical beds. The buildings of the clinic are spread out over many areas; they are in the form of one-story wooden buildings, extremely comfortably furnished and with every known heating and cooling device. There is a large permanent staff of psychiatrists and about 300 medical graduates who are doing a three years' course for the American diploma.

American research laboratories are well endowed, and attract extremely able men. Perhaps one of the most interesting pieces of research that I saw was at the Illinois Neuropathic Institute, Chicago, where Warren S. McCulloch is carrying out fascinating animal experiments to correlate physical exhaustion with the animal's capacity for choice. The healthy rat will choose his food—though it is in the form of a clear fluid without taste, so that his powers of discrimination are strictly limited—in the right proportion of vitamin content to his body needs. After a degree of exhaustion his powers of discrimination become less pronounced, and he loses weight, not from exhaustion, but from lack of balanced diet.

Meduna, who was the originator of "Cardiazol" convulsive therapy, in the same laboratory has done some research on the effect of different mixtures of carbon dioxide in cases of psychoneurosis. By continuing carbon dioxide inhalations over a period at various strengths, he found that a series of such inhalations brings about definite clinical improvement.

Australian psychiatry is perhaps more orientated to British than to American psychiatry, though there is a tremendous lot to learn in both countries. It may be long before we have the riches and endowments to launch psychiatry here on an American scale.

Psychosomatic Medicine.

I should like to say a few words concerning the rather inelegant term "psychosomatic medicine", which is freely used in America, and is becoming more used in England. There are a number of illnesses which present physical symptoms and perhaps physical signs and yet often have an emotional background. Perhaps patients who feel ill and are ill resent the implication that there may be any psychological element in their illness. It is difficult in British countries to overcome the feeling that if psychiatry comes into one's illness one is liable to be classified as "neurotic". In actual fact psychosomatic medicine deals only to a minor extent with the neurotic, but does deal with those patients who have perhaps serious organic diseases, the symptoms of which are partly dependent upon emotional factors. The other large group of disorders are those dependent upon the vegetative nervous system—migraine, asthma, essential hypertension and certain gastro-intestinal disturbances. The treatment of such conditions comes primarily in the province of the physician, and it is necessary for him to have some psychological insight if he is to treat them efficiently. "Common sense" methods do not always work, and there are times when expert psychiatric opinion has to be sought—it is for the physician to recognize when such a time is ripe.

Comment.

There are many reforms needed before psychiatry can be brought into its most useful sphere of activity. Legal reforms regarding certification and some of the medico-

legal aspects of psychiatry are necessary. The question of dealing with chronic and senile cases needs revising, and there are many other aspects which time does not permit me to discuss.

Conclusion.

In this lecture I have attempted to give you, inadequately I fear, an idea of the type of work in psychiatry that is being done in Britain and in America—the routine work, the research work and the teaching work. If these lectures can in any way stimulate in the teachers of medicine the idea that psychiatry is an integral part of medicine, if the young doctors with psychiatric leanings can be stimulated to see for themselves what is being done in other countries, and if the public can be encouraged to see psychiatry as a gathering force that must be a help in every department of their own lives, then these lectures will not have been given in vain.

For psychiatry to progress in this country, there must be not only more well-trained psychiatrists, but facilities for training. Many young British and American psychiatrists would be glad to come to Australia in an exchange system; but it is natural for them to ask what we have here to offer them in the way of teaching and research facilities.

Mental hygiene departments and governments responsible for their maintenance must see that the training ground for psychiatry exists not only in mental hospitals, but in out-patient clinics, child guidance centres and general hospital psychiatric clinics, so that the preventive side of psychiatry may receive adequate attention.

I should like to see money spent, not in extensive buildings, but in intensive efforts to attract more medical and nursing personnel—to pay them more adequately, and to establish a great research and teaching centre, say, at the Receiving House, which will collaborate with the general hospital psychiatric departments, the social service departments and the school of psychiatry. An operating theatre is also an essential part of such a hospital.

If governments are not prepared to take this broader view of psychiatry, then the time is ripe for some endowment fund to be started whereby a psychiatric hospital might be established with paying and non-paying beds, and with equipment for research and for training medical and nursing personnel, psychiatric social workers and occupational therapists. The psychological research work would be in close cooperation with the university department of psychiatry under Professor Oeser.

Psychiatry is comparatively young as a science. It can remain stagnant and rust; it can take wrong paths and do positive harm if undirected; but it is our job to see that it is guided along the right paths.

The knowledge gained in research and teaching, in a subject that admittedly has its doubts and fears, will evolve a science that will render psycho-pathology akin to anatomy, physiology and pathology. Modern psychiatry is young and perhaps has not yet lost its growing pains.

Let me quote Samuel Butler:

> Ideas and opinions, like living organisms, have a normal rate of growth which cannot be either checked or forced beyond a certain point, and they can be held in check more safely than they can be hurried. They can also be killed, and one of the surest ways to kill them is to try to hurry them.

Psychiatry has ideas and organisms which may be killed if its protagonists attempt to force the issue before proper maturity has been reached.

I think we can see from the modern portents that psychiatry is emerging from adolescent growth, and if carefully nurtured will grow in stature and be of everlasting value to mankind.

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STAPHYLOCOCCUS PYOGENES IN NEW-BORN BABIES IN A MATERNITY HOSPITAL.

By PHYLLIS M. ROUNTREE and R. G. H. BARBOUR,

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IN recent years outbreaks of *pemphigus neonatorum* in maternity hospitals have directed particular attention to *Staphylococcus pyogenes* as the causative agent of such epidemics and general attention to the problems raised by the ubiquitous distribution of this organism. Martyn (1949) and Cunliffe (1949) in England and Buttiaux and Pierret (1949) in France found that from the noses and stools of 90% to 100% of normal infants born in hospitals *Staphylococcus pyogenes* could be isolated within the first few days of life. On the other hand, studies of strains isolated during epidemics by Allison and Hobbs (1947) in England, by Krag-Andersen (1943) in Denmark, and by Melin and Wallmark (1949) in Sweden have led these workers to suggest that only certain strains may be capable of giving rise to epidemic *pemphigus neonatorum*.

Martyn's data, obtained from normal infants, did not permit him to come to a conclusion as to the source of the nasal strains. However, Cunliffe, from a comparison of the carrier rates in infants and their mothers, concluded that factors other than infection from maternal sources were responsible for the establishment of the nasal carrier state in normal infants born in hospitals. Allison and Hobbs had previously reached the same conclusion with regard to infection of infants during outbreaks of epidemic pemphigus.

The high nasal carrier rates demonstrated in these hospital-born babies may indicate that the infants are living in an environment so heavily laden with staphylococci that their chances of escaping infection are slight. At the same time the data also suggest that the nasal mucosa of the newborn may provide an ideal *milieu* for the staphylococcus.

The investigations which we now describe were carried out in the King George V Memorial Hospital for Mothers and Babies during the months of May to October, 1949, a period when there appeared to be little clinical staphylococcal infection in the babies. In particular, we have attempted, by the use of phage-typing, to determine the origin of the nasal strains present in young infants.

The investigations may be conveniently divided into three parts: (i) a survey of the nasal carrier rates in a series of babies, their mothers and their nursing attendants; (ii) observations on the distribution of *Staphylococcus pyogenes* in the dust and air of one nursery; (iii) the incidence and characteristics of strains of *Staphylococcus pyogenes* isolated from lesions in babies from May to August.

Methods.

The methods used have been fully described by Rountree and Thomson (1949). In brief, they consisted of the characterization of the strains in regard to penicillin and streptomycin sensitivity and to phage type.

Nasal Carrier Rates of Staphylococcus Pyogenes in a Series of Babies, Mothers and Nursing Staff.

During August and September nasal swabs were taken from 54 babies aged six to seven days, who were being cared for in two nurseries. Nasal swabs from their

mothers and from 44 nurses attending the mothers and babies were examined at the same time.

The numbers in each group carrying *Staphylococcus pyogenes* and penicillin-resistant strains are given in Table I. From 48 of the 54 babies *Staphylococcus pyogenes* was isolated, being obtained in profuse numbers in all except three of the cases and in many instances in pure culture. This carrier rate of 88·9% corresponds with those obtained by Martyn (1949) and Cunliffe (1949). Twenty-eight (51·8%) of these 48 babies were carrying penicillin-resistant strains, but no streptomycin-resistant strains were found. The nasal carrier rate of the mothers of these babies was 42·6%, and from only three (5·5%) were penicillin-resistant strains isolated. Of the 44 nurses, 24 (54·5%) were found to be carrying *Staphylococcus pyogenes*; but in contrast to the mothers, 14 (31·8%) of these yielded penicillin-resistant strains. These rates for mothers and nurses correspond closely with those found earlier in the year in the nursing staff of the adjoining general hospital and in a sample of the general population (Rountree and Thomson, 1949).

TABLE I.

Nasal Carrier Rates of Staphylococcus Pyogenes and of Penicillin-Resistant Staphylococcus Pyogenes in 54 Babies and their Mothers and in 44 Nurses.

Group.	Number.	Carriers of *Staphylococcus Pyogenes*.		Carriers of Penicillin-Resistant Strains.	
		Number.	Percentage.	Number.	Percentage.
Babies ..	54	48	88·9	28	51·8
Mothers ..	54	23	42·6	3	5·5
Nurses ..	44	24	54·5	14	31·8

The differences in the carrier rates of the mothers and babies, with regard to both the total number of carriers and the numbers carrying penicillin-resistant strains, indicated that the mothers were an unlikely source of infection for their babies. An analysis of the phage types of the strains isolated from the 54 pairs of mothers and babies gave further confirmation of this. Five combinations of "positive" and "negative" in these pairs are possible. The analysis in Table II shows that these five combinations were found in the material.

TABLE II.

The Nasal Carrier State in 54 Pairs of Mothers and Babies.

Combination.	Number Found.	Percentage.
Mother −, baby −	3	5·5
Mother +, baby −	3	5·5
Mother −, baby + ...	28	52·0
Mother +, baby + (same strain) ..	7	13·0
Mother +, baby + (different strain) ..	13	24·0

In 44 out of the 54 babies the nasal staphylococcal flora differed from that of the mother. In three pairs both mother and child were "negative", and in three pairs the child of a "positive" mother was "negative". In seven pairs both mother and baby harboured the same phage type; in these cases it is impossible to state whether the mother infected her baby or *vice versa*. In an overwhelming proportion (41 out of 48) "positive" babies either harboured strains of phage type different from their mothers or else their mothers were not nasal carriers. In other words, in only seven (13%) of the cases could the mother have been a possible source of infection. The results so clearly indicated the importance of the hospital environment in establishing the nasal carrier state in these newborn infants that it was not considered necessary to examine a larger number of babies and their mothers.

The phage types isolated from the nurses and from those babies carrying strains different from their mothers are shown in Table III. No predominant phage type was present in either of these groups. From the babies 14 different phage types were isolated and 12 strains could not be typed. In the 24 nurses eight types were found and nine strains could not be typed. However, there is some correspondence between the types found in babies and nurses. With one exception (type 3B) all the phage types carried by the nurses were also found among the babies. A number of types found in the babies were not isolated from the nurses. The source of these strains could not be determined, but their possible origin will be considered in the discussion of the results as a whole. The history of the occurrence of the type 3A strains is of some interest. This strain appeared in one baby and its mother at a time when no staff nasal carrier of this type was working in the nursery. Subsequently four more babies and a nurse were found to be carrying the strain, which was also isolated from the nursery dust. The evidence available suggests, although not conclusively, that the strain was passed from mother to baby and so to the nursery environment.

TABLE III.

Phage Types of Staphylococcus Pyogenes Isolated from the Noses of Babies and Nurses.[1]

Phage Type.	Number of Nasal Carriers.	
	Babies.	Nurses.
3A..	5	1
3B..	—	2
6/47	3	—
7/47D	2	1
29	2	—
31A	1	1
31B	2	3
42E	1	—
44	1	—
47	3	1
47/31B	2	4
47C	2	—
52	2	2
52/31A	1	—
52/52A	2	—
Not typable	12	9
Total number of types	14	8
Total number of strains	41	24

[1] Those babies carrying strains identical with their mothers have been excluded from the table.

Observations on the Distribution of Staphylococcus Pyogenes in the Air and Dust of a Nursery.

The nursery from which the dust and air were examined is one in which the greater proportion of the nasal swabs had been obtained. It is situated on the first floor of the hospital and is well ventilated, with large windows extending to floor level and opening onto an open balcony. It measures 30 feet by 20 feet and usually contains as many as 30 babies. Owing to this overcrowding, the cots very frequently touch each other. The floors are covered with linoleum, which is polished once a week and is swept daily with dry brooms by the domestic staff. Dusting of the cots with cotton-wool swabs moistened with methylated spirits is carried out twice a week by the nurses. During this dusting it is necessary to move the cots to gain access to them. Napkin-changing, washing and umbilical toilets of the babies are performed in a small room opening off the nursery. None of the nurses is masked when handling the babies.

During sweeping and dusting air samples were taken from the centre of the nursery onto blood agar plates in a slit sampler similar to the small model described by Bourdillon, Lidwell and Lovelock (1949). Samples of dust taken with swab-sticks from various places on the nursery floor were plated directly onto blood agar.

The numbers of bacteria per cubic foot of air in a series of 14 samples taken between 8.30 and 9.45 a.m. on September 28, 1949, are shown in Figure I, which illus-

trates the rise in total numbers which occurred during dry sweeping. There was also a rise when cots near the sampler were moved. The numbers of *Staphylococcus pyogenes* per cubic foot of air are also shown on the diagram, but on a larger scale than the total counts. The total number of colonies of *Staphylococcus pyogenes* grown from 16 cubic feet of air was 29, a mean count of 1·8 per cubic foot, while the mean total count over the whole period was 72 per cubic foot. The figures indicate that one in every 40 organisms isolated from the air during this period of activity in the nursery was a pathogenic staphylococcus. This staphylococcal count is considerably higher than those counts which have been obtained during

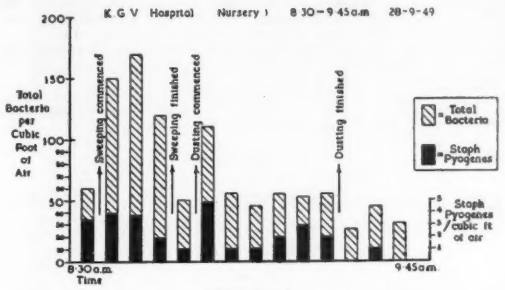

FIGURE I.

Counts of total bacteria and of *Staphylococcus pyogenes* per cubic foot of air obtained in a nursery during and after sweeping and dusting.

comparable periods of activity in wards and operating theatres of the adjoining general hospital, and which vary from nil to one per 10 cubic feet of air.

Counts were also made on another morning an hour after sweeping, when the activity of the nursery was confined to the coming and going of three nurses. On this occasion 30 cubic feet of air gave a mean total count of 22·6 per cubic foot and 11 colonies of *Staphylococcus pyogenes* were obtained. Dust samples taken on both occasions from various parts of the nursery all yielded large numbers of *Staphylococcus pyogenes*.

TABLE IV.

Phage Type of 14 Colonies of Staphylococcus Pyogenes Isolated from the Air and Dust of the Nursery.

Phage Type.	Number of Colonies.
3A	1
6/7	2
6/47	3
7/52	1
31B	2
47	4
47D	1

Thirty colonies from these air and dust plates were selected at random and their phage type and sensitivity to penicillin and streptomycin were determined. Twenty-five of 30 colonies were penicillin-resistant, but all were streptomycin-sensitive. Unfortunately 16 colonies proved not to be typable with phages available. Among the remaining 14 colonies seven different phage types were found. The distribution of these types is given in Table IV. A comparison with Table III shows that five of these seven types were also isolated from babies and nurses.

Staphylococci Isolated from Lesions in Babies.

During the months from May to August all strains of *Staphylococcus pyogenes* isolated from babies in the hospital were sent to us by Dr. Mary Heseltine for phage-typing. The main source of these strains was conjunctivitis or "stickyeye", strains isolated from this condition accounting for 29 out of 46 strains. In addition there were four cases of umbilical infection, four cases of minor skin infections, two cases of infection of the breast, and three of infected wounds. All these infections were apparently of low pathogenicity, and at no time was there any appearance of *pemphigus neonatorum* or pemphigoid lesions. Although we cannot be certain that material from all babies showing signs of staphylococcal infection during this period was sent to the laboratory for examination, the number of swabs received suggests that the number of staphylococcal infections was not unduly high, since approximately 1000 babies were delivered during the four months.

Twenty-one of the 46 strains were found to be penicillin-resistant, but no streptomycin-resistant strains were isolated. The correspondence between the numbers of penicillin-resistant strains obtained during the survey of the infants' nasal strains and those isolated from the lesions is reasonably good. A very wide variety of phage types was found among the strains from the lesions, no particular type being predominant.

Discussion.

The nasal carrier rates in infants aged seven days obtained in this survey correspond closely with those obtained in England and France. The almost universal infection of the nose of the hospital-born infant with *Staphylococcus pyogenes*, while indicating the prevalence

TABLE V.

Source and Penicillin-Resistance of 46 Strains of Staphylococcus Pyogenes Isolated from Newborn Infants.

Source.	Number of Strains.	Number Penicillin-Resistant.
Conjunctivitis	29	14
Umbilical infection	4	3
Hæmatoma	1	—
Skin infection	4	1
Breast infection	2	2
Wound infection	3	1
Stool	1	—
Nose	2	—
Total	46	21 (45·7%)

of staphylococci in the hospital environment, also seems to suggest that the nasal mucosa of the newborn is peculiarly susceptible to colonization with these organisms. The fact that approximately only half of the adult nurses working in the same environment were shown to be carrying *Staphylococcus pyogenes* in the nose lends weight to the idea of a physiological difference between the adult and the infant. This is further supported by the fact that in practically all the infants staphylococci were present in profuse numbers, such as are found in only approximately one in every three adult nasal carriers.

The method of phage-typing has shown clearly that in only a few cases in this series did the infant receive its nasal strain from its mother, thus confirming the conclusions of Cunliffe (1949), which were based on the differing carrier rates in his series of mothers and babies.

The origin of those nasal strains not derived from the mothers is, however, less easy to determine. From the moment of its delivery in hospital the infant is exposed to infection from a number of sources. These may be the nasal mucosa of its attendants and the dust and air of the labour ward and the nursery. In the nursery we have found a relatively higher concentration of *Staphylococcus pyogenes* in the air than in other parts of the hospital. Since the count in the air is certainly raised during periods of activity such as dusting and sweeping, it is not inconceivable that air-borne organisms inhaled by the infant may lodge in the anterior nares and there establish themselves. The nursery air and dust are no doubt further infected from the other babies in the

nursery, either directly or via their bedclothes and clothing. The communal bench on which the babies are placed for napkin changing, umbilical toilet and washing would appear to be an obvious place in which infection could occur, either directly from a nasal carrier among the nurses or from staphylococci deposited there by preceding infants. We did, in fact, recover large numbers of staphylococci from this bench, but unfortunately were unable to trace their source with certainty.

The implication of the nurses as sources of infection for the babies depends on the fact that there was a similar distribution of phage types in both nurses and babies. It cannot, however, be excluded that both groups obtained their strains from a common source—that is, from the air and dust of the nursery. In spite of the lack of conclusive evidence implicating the nurses, it would seem, however, that attention should be paid to the adequate masking of nurses handling newborn infants.

The whole question of the routes of infection of the newborn with *Staphylococcus pyogenes* has been thoroughly discussed by Allison and Hobbs in their inquiry into the epidemiology of *pemphigus neonatorum*. Their findings during an epidemic period with regard to the distribution of staphylococci in the babies, the nurses, and the dust and air of the nurseries are closely parallelled by ours, which were obtained during a non-epidemic period. The one difference found was that we were unable to demonstrate the predominance of any particular type.

We were perhaps fortunate that no epidemic occurred in the hospital during the period under review, since conditions conducive to the rapid spread of an epidemic strain appear to be present. That such epidemic strains do exist in Sydney is shown by the fact that in 1947 a serious epidemic of *pemphigus neonatorum* occurred in another hospital in the metropolitan area (Dr. M. Moyes, personal communication). In England strains of phage type 3A have been the cause of a number of such epidemics (Dr. V. D. Allison, personal communication). In our case the appearance in the babies of the type 3A strains was not associated with clinical pemphigus. It did, however, provide suggestive evidence of a route by which new, and perhaps epidemic, strains may be introduced into a nursery by a mother who infects her baby and so introduces the strain into the nursery.

It may well be that hospital authorities should reconsider the practice of congregating large numbers of newborn infants in large and often overcrowded nurseries, and substitute, so far as present conditions permit, smaller units.

Summary.

Forty-eight of 54 infants aged seven days, born in hospital, were found to be nasal carriers of *Staphylococcus pyogenes*.

Phage typing established that in only seven of these babies could the source of the nasal strain have been the mother.

Large numbers of staphylococci were found in the air and dust of a nursery in the hospital. Their phage types corresponded closely with those present in the noses of the babies and the nursing staff.

In spite of the widespread distribution of potentially pathogenic staphylococci in the hospital environment and in the babies, there was not an unduly high incidence of clinical staphylococcal infection and no cases of *pemphigus neonatorum* occurred.

The high nasal carrier rates in the newborn compared with adults in the same environment suggest a physiological difference between the nasal mucosa of the infant and that of the adult.

Acknowledgements.

This work was supported by a grant from the Australian National Health and Medical Research Council. We wish to thank Dr. Mary Heseltine, without whose cooperation this investigation could not have been carried out. Our thanks are also due to Dr. D. Rothfield for taking the nasal swabs.

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THE SELF-RETAINING HOIST: A NEW METHOD OF NURSING IN MAJOR ORTHOPÆDIC PROCEDURES.

By Godfrey Harris, M.B., B.S. (Sydney),
Mudgee, New South Wales.

For many years I have been completely dissatisfied with the standard methods of dealing with the helpless orthopædic patient, and recently I have devised an efficient apparatus which gives comfort and security to the patient as well as an autonomy hitherto impossible in the matter of self-adjustment in bed.

Every part of the equipment used was obtained readily from materials in full supply in a small country town, and therefore the constituents are presumably freely obtainable anywhere.

The apparatus has passed through some dozen or more stages of improvement by simplification, and is now applicable as required to any helpless patient in either a "fracture bed" or any ordinary hospital bed.

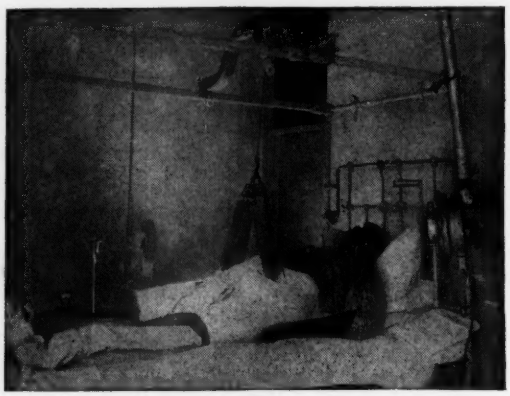

Figure I.

The Specific Advantages of the Apparatus.

1. The apparatus is a compact and simple device with a maximum load of half a ton, and therefore there is no possibility of overload; whereas the pulley attachments to a standard fracture frame buckle and bend under the load of a fifteen stone patient *plus* his plaster cast.

2. The patient cannot slip or be jolted, and he soon learns that he is safe, that rapid movements are impossible, and that the load is self-retained in precisely whatever position the apparatus is in when winding ceases in either direction. It "stays put" automatically and is as smooth in action as the modern hydraulic motor-car jack. Nurses can, and sometimes do, jolt the patient when using a block and tackle suspension. With a self-retaining hoist the patient can raise or lower himself, using only one finger to rotate the handle of the hoist. With a block

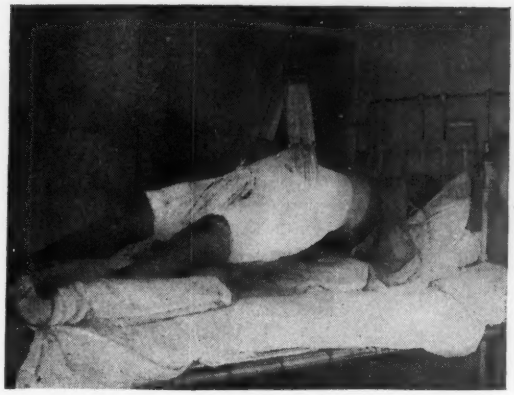

FIGURE II.

and tackle system the fixation of a cord or of the swinging endless chain offers serious disadvantages to its use; the height of the gantry above the bed level has to be excessive and clumsy to allow a block and tackle suspension free enough play to raise a patient adequately.

3. The integrity of the plaster cast is preserved indefinitely. As one of my patients expresses it: "Even if five or six nurses are trained in lifting together, they cannot lift a heavy man in a plaster evenly. The apparatus

FIGURE III.

always does lift me like rising up in a lounge chair. I can always raise myself and adjust my air cushion when I feel like it; in the past I would wait for hours to have it done for me." When an apparently trivial attention like the adjustment of an air cushion requires the coordinated effort of four or five nurses, a patient may succeed in having it done once at his convenience, but he certainly would not have it done a second time in any Australian hospital nowadays. (I was in 1948 an orthopædic patient myself in one of the largest and best equipped of our hospitals, and I discovered that "hourly backs" are a thing of the past in this Golden Age of nursing.)

The point is that the patient can raise himself effortlessly and more safely than half a dozen nurses can without the apparatus. I found that properly applied plaster casts cracked on both sides into the groin after a week of ordinary nursing, whereas similar plaster casts have needed no attention in months with the apparatus in use. This has happened with both of my present patients, and it has been the experience of everyone acquainted with ordinary methods. In fact, the preservation of the integrity of the plaster cast and therefore the stability of the fracture is possibly the greatest advantage to be derived from the use of the apparatus.

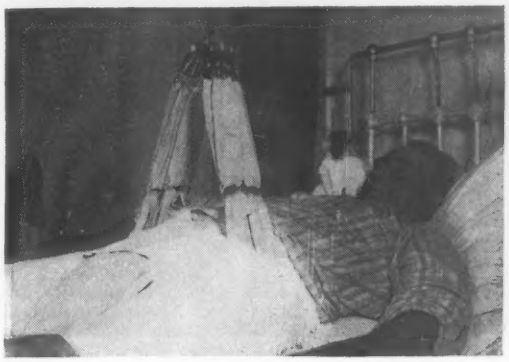

FIGURE IV.

4. The patient immediately has vastly greater freedom from pain. No more convincing proof of the value of the apparatus can be given than the panic felt by both of my present patients when, for the purpose of the illustration of this article, parts of the gear were removed for an hour or two, or for that matter, the astonishment of any member of the nursing staff when for the first time she finds that the patient can manage a bed pan or the like

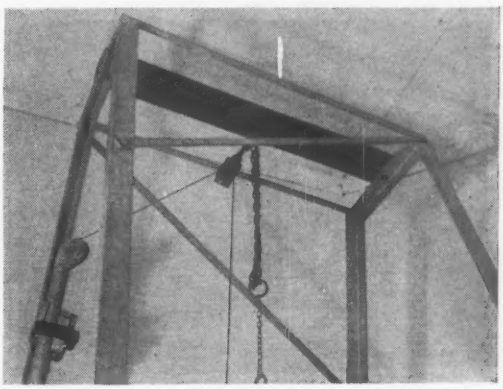

FIGURE V.

without assistance of any sort. Both patients are delighted by their freedom from pain during nursing procedures now that they are in the apparatus. Both dreaded essential nursing before the apparatus was put into use.

Reports of Cases.

CASE I.—A.McK., a mine manager involved in a motor-car accident, had a central dislocation of the entire half of the left side of the pelvis with distraction of the *symphysis pubis* and fracture of the acetabulum. He weighs fifteen stone. In this case the apparatus is used without a gantry. After reduction on an orthopædic frame and application of plaster

this man was nursed in a "fracture bed". He was completely helpless until the self-retaining hoist was applied. Figure I shows multiple slings inset in the plaster, converging on a spreader and thence by wire cable suspended from a pulley on a universal joint attached to a curved piece of railway line clamped to the ordinary horizontal rails of a standard "fracture bed". The geared hoist is seen clamped to the left of the head of the bed. Figure II shows that patient raised for nursing. The handle of the hoist is seen on the patient's left. It will be noted that although the apparatus is under load, no fixation of the handle is necessary. This is the

Figure VI.

only essential movement of the patient needed for everyday unavoidable nursing procedures, and allows the insertion and removal of the bed pan and attention to his back with a very minimum of disturbance. However, as his hands are free, he is able if necessary to raise his whole trunk from the bed by grasping the usual ring suspended in position at the head of the bed. This manœuvre is well illustrated in Figure III. After installation of the apparatus the patient was able to attain limited movement about the bed and

Figure VII.

could ease his position at will. Even this apparently small detail, he assured me, made a great deal of difference to his comfort. At the end of the nursing procedure or adjustment he let himself down onto the bed by winding the handle, and merely had to lift the spreader off the hook (seen at the upper margin of Figure IV), and the rigging could then be cast aside across the plaster cast and the bed clothes drawn up to cover the atient in the usual way.

For the purpose of taking X-ray photographs the straps of the suspension were unclipped from the spreader and turned aside so that they fell to the right and left of the plaster cast and were completely out of the way.

Case II.—This case illustrates the use of the apparatus with a gantry. D.M., a married woman, who was also the victim of a motor-car accident, sustained a comminuted fracture of the shaft of the femur, a supracondylar fracture of the same femur, a comminuted patella (since excised), open wounds into both knee joints, and four fractured displaced ribs as well as other injuries irrelevant to this discussion. This patient was nursed in a private hospital on a standard hospital bed without an overhead fixture attached; consequently, a gantry, seen in Figure V, had to be used to take the load.

Figure VIII.

The legs of this gantry are seen in most of the pictures of this series, but a gantry of some sort is unavoidable if a standard pattern fracture-bed must be used. However, for emergency use any commercial garage can produce one, either on hand or by construction. The upper end of the geared hoist with the cable emerging over a pulley is well illustrated, as is also the overhead pulley with its universal joint. Note that the whole gantry is merely a clumsy substitute for the piece of curved railway line seen in Figure I. The chain seen in Figure V is the suspension for an ordinary "monkey ring".

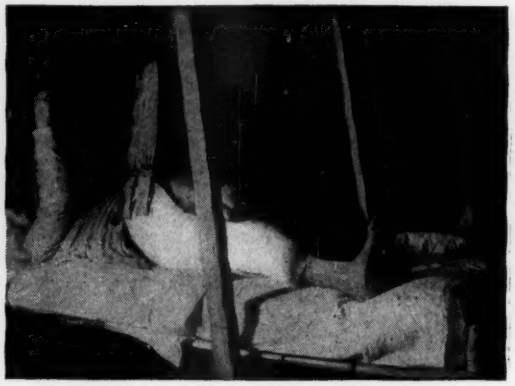

Figure IX.

Figure VI shows the legs of the gantry and illustrates the maximum amount of movement possible for this particular patient without the use of the mechanical hoist. Figure VII illustrates the position of the mechanical hoist clamped to one leg of the gantry. It will be noted that none of the hoisting gear attached to the patient is visible. This lies at the side of the patient's plaster cast and is covered by the bedclothes. The illustration shows how the S hook of the cable is held out of the way on a small T bolt. To raise herself in bed the patient detached the hook from the T bolt and suspended the spreader on it as shown in Figure VIII; then by turning the handle of the hoist as in Figure IX she could raise herself for nursing or adjustment.

Figure X shows the patient's clearance from the bed for nursing purposes. This degree of clearance was adequate and could be attained without discomfort in spite of her extraordinary series of fractures.

Essential Details of Suspension.

In the course of the evolution of the apparatus certain mistakes were made and difficulties overcome. These included the following.

1. A block and tackle were tried out before the mechanical hoist, a counterweight suspended from pulleys under the bed being used. The total weight crumpled the frame of a fracture bed.

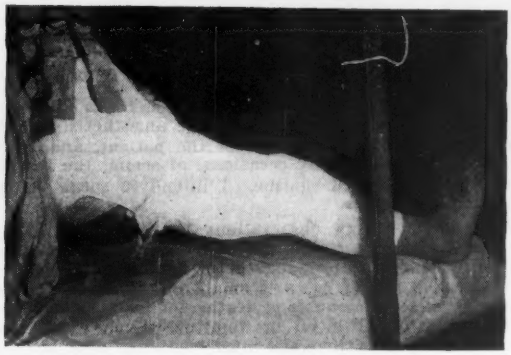

FIGURE X.

2. A canvas sling with metal spreaders in the edges lasted for one week in effective use, then tore out.

3. Rope handles incorporated in the sides of the plaster cast to raise or tilt the patient crack the plaster and require at least two nurses for their effective management. (My patient corrected this to six.)

4. Figure XI shows the disorderly, uneven suspension obtained when reliance is placed on terminal rings attached by harness clips to a spreader. Figure XII shows the interpolation of a double ring adjustment between the plaster and the terminal ring, which I regard

FIGURE XI.

as one of the most important parts of the whole apparatus. The interposed rings allow easy regulation of the length and tension of each strip when the load is off. This adjustment can, in fact, be made by the patient without any difficulty at all, and is correct when the ring of the spreader is horizontal. However, when the load is on, the greater the pull, the tighter the rings clamp the free end of the adjustable canvas strap.

Details of the Body Suspension.

Any form of flat sling is unsatisfactory; various types were tried. The best of them, a canvas sling one foot wide, eyeletted to metal spreaders, obstructed the perineal window of the plaster cast or crept up over the patient's

FIGURE XII.

fractured ribs, and apart from this compressed the plaster cast laterally. In any case, the eyelets cut out under the strain after a week's use.

FIGURE XIII.

A completely satisfactory suspension was devised from venetian blind webbing illustrated in Figure XIII. Venetian blind webbing appears to be the ideal material for the purpose. When it is incorporated in the body plaster cast, the plaster of Paris flows between the two layers

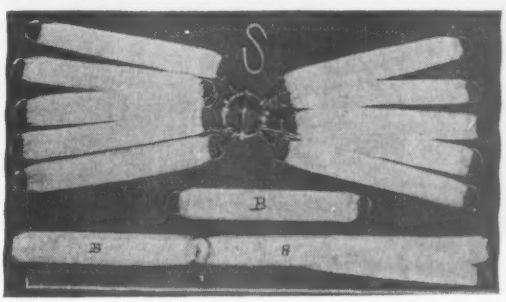

FIGURE XIV.

of webbing and the strip as a whole is fixed immovably by the plaster setting around the tangential reinforcing slips. This prevents the formation of a channel in the body plaster cast through which the strap can work loose.

Each single ring of the smaller strip marked "B" (Figures XIV and XV) is attached to the circular metal spreader by an ordinary harness clip, and the circular spreader hooks to the eyelet on the cable from the hoist.

Comment.

In spite of this complex description and the apparent multiplicity of parts of the apparatus, it will be seen from Figure XVI that when the apparatus is out of use it is not obtrusive, clumsy or distressing to the patient.

The self-retaining winding gear is in fact a United States Navy bomb hoist, or the similar mechanism incorporated in any modern rotary clothes hoist. It therefore "stays put", and the patients prefer to operate it themselves.

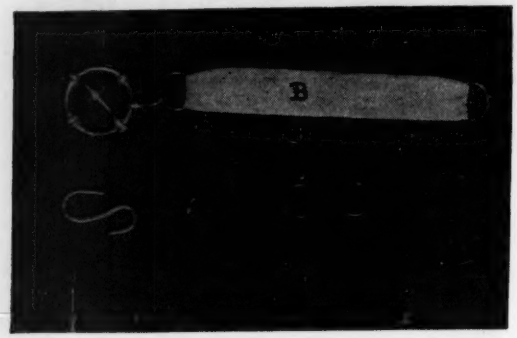

FIGURE XV.

Acknowledgements.

I wish to acknowledge the expert and painstaking photography of Mr. W. Scruse, of Mudgee, who is responsible for the quality of the illustrations of this article, and also to thank the engineering staff of the Federal Brewery, Mudgee, and James Loneragan, Proprietary, Limited, Mudgee, for technical cooperation in the manufacture of the apparatus.

FIGURE XVI.

Summary.

1. A compact, foolproof, self-retaining apparatus for the management of helpless patients in bed is described and illustrated.

2. The components were obtained without difficulty in a small country town.

3. The apparatus is indestructible, safe and inconspicuous.

4. Lifting of the patient is effortless and jerking is literally impossible, the velocity ratio of the hoist being 1:40.

5. Plaster casts are not fractured, as no attempt ever need be made to turn the patient. There is neither excuse nor justification for straining the plaster cast.

6. The apparatus does not interfere with any of the standard methods of traction or pulley-and-weight suspension of the extremities.

7. As a whole, and in detail, the apparatus is an innovation in the nursing of helpless patients, and, I believe, a radical improvement on existing methods for their management.

POST-OPERATIVE CARE OF THE PATIENT.[1]

By MARJORIE HUGHES, M.B., B.S., D.A.,
Melbourne.

WHILE in the United States of America, I was impressed by the careful attention given by the anæsthetists to the problem of post-operative care of the patient, and I had the opportunity, on many occasions, of seeing the benefits of a highly organized routine. I intend to speak of this in a moment or two.

To supplement my observations in the United States of America, and for the purposes of this paper, I reviewed some of the recent post-anæsthetic deaths in Melbourne. Although the list of cases is small, one is struck by the repetition of certain causes of death—for instance, asphyxia from inhalation of blood or vomitus. Such deaths are, in the main, preventible, and must lead us to seek methods which may avert such disasters.

There should be a planned programme of resuscitation in the operating theatre and ward. As the time is limited in which one has a chance of obtaining a successful result from resuscitation, it should be possible to put this planned programme into immediate action when an emergency arises.

In the operating theatre, where one can quickly posture the patient, where tracheo-bronchial suction can be performed, where artificial respiration can be carried out by manual inflation of the lungs with pure oxygen, where circulation can be supported with the intravenous administration of fluids, and where bronchoscopy, tracheotomy or cardiac massage can be performed without delay, such a programme can be instituted. But when the patient has left the operating theatre and a post-operative emergency arises, in the absence of proper facilities and organization, one cannot rapidly set into action such an important routine.

That is why, in many hospitals in the United States of America, the use of the post-anæsthetic observation room has been adopted, and has proved to be one of the important advances in the care of the patient. Incidentally, it has also been of great benefit to the hospital administration.

This post-anæsthetic observation room (called "P.A.R.") is situated in the surgical block, is equipped for all forms of resuscitation work as described above, and is staffed by medical personnel who have had special training in this work.

Such a room is invaluable, not only for treating sudden emergencies, such as inhalation of blood or vomitus, but in the treatment of all other post-anæsthetic sequelæ. For instance, intravenous therapy can be continued or instituted and oxygen therapy may be continued or instituted for those many patients who are in need of such treatment. This need exists in the following circumstances.

1. In surgical shock. After extensive surgery, oxygen want results from the blood volume's being so reduced, or its rate of flow so decreased, that an inadequate supply of oxygen reaches the tissue cells. To treat this condition, oxygen therapy, together with blood transfusion and other measures for restoring the respiration and circulation, must be started.

[1] Read at the annual meeting of the Australian Society of Anæsthetists (British Medical Association), Melbourne, March 21, 1949.

TABLE I.

Case Number.	Sex and Age of Patient.	Operation.	Anæsthetic Agents.	Duration of Operation.	Cause of Death.	Associated Pathological Findings.	Remarks.
I	F. 4·5 years.	Reduction of fracture of femur.	Ethyl chloride, ether.	30 minutes.	Asphyxia. Vomitus in air passages.	Nil.	Last meal 1 p.m. Accident 4.30 p.m. Anæsthetic 6.30 to 7 p.m. Vomited 8.15 p.m., when apparently out of anæsthetic. Death 10 p.m. Stomach contained undigested food.
II	M. 13 years.	Reduction of fracture of forearms.	Ethyl chloride, ether.	10 minutes.	Asphyxia. Vomitus in air passages.	Nil.	Stomach full of partly digested semi-solid food nine hours after accident.
III	M. 17 years.	Repair of lacerated hand.	Pentothal, 0·5 gramme, ether, 30 ounces.	3·5 hours.	Asphyxia. Vomitus in air passages.	Nil.	Stomach two-thirds full of partly digested food. Vomited half an hour after operation completed. Usual methods of resuscitation, including tracheotomy, but this did not relieve obstruction as semi-solid lumps were in bronchi.
IV	M. 41 years.	Mangled hand	"Carbogen", ether, 28 ounces.	1 hour.	Asphyxia. Vomitus in air passages.	Nil.	Condition good. Operation completed. Died one hour later in ward after regurgitation of stomach contents, which were inhaled into bronchi.
V	M. 12·5 years.	Suturing of finger.	Ether.	55 minutes.	Asphyxia. Inhalation of vomitus in recovery stage of anæsthesia. Vomitus in bronchial tree and in finer bronchioles.		Last meal 5.30 p.m. Operation 10 p.m. Vomited after return to casualty ward. Was given (i) artificial respiration, (ii) oxygen, (iii) suction, (iv) bronchoscopic aspiration; end of bed was put up on blocks; stimulant "Anacardone" was given. Died at 1 a.m.
VI	M. 59 years.	Removal of glands in neck.	"Pentothal" with curare, followed by endotracheal administration of cyclopropane.	70 minutes.	Laryngeal and pharyngeal œdema.	Hæmorrhage in vallecula and around glottis.	Death occurred two hours after operation was completed. Acute œdema was associated with the passage of the intratracheal tube.
VII	M. 49 years.	Pneumonectomy for cancer of left lung.	"Omnopon", 1/3 grain, scopolamine, 1/150 grain; "Tubarine", 15 milligrammes; "Pentothal", 0·6 grain; cyclopropane and oxygen; 45 minutes later "Tubarine", 5 milligrammes; 45 minutes later, "Tubarine", 5 milligrammes.	3 hours.	Respiratory failure.	Metastases in mediastinal glands. Cholelithiasis. Fluid dark blood throughout the body.	Death occurred five hours after commencement of anæsthesia from respiratory failure. There were periods of post-operative apnœa; oxygen was given through an intratracheal tube under pressure. Three injections of "Prostigmin" were given altogether from the commencement of the operation. The patient was not capable of maintaining spontaneous respiration at an adequate level two hours after operation was completed. Only a "fair risk".
VIII	F.	Cholecystectomy.	——	—	Hæmorrhage.	Bleeding cystic artery.	Died 10 hours after operation, in ward.

2. In anæsthetic shock. Anæsthetic drugs which are depressing to the respiration and circulation may still be present in the body after operation. There may be depression of the respiratory centre from morphine or the barbiturates, or paralysis of the respiratory muscles from a high spinal block or curare. In the last-mentioned cases artificial respiration by manual inflation of the lungs with oxygen may be required, and this ventilation of the patient will have to be continued until he is able to maintain spontaneous respiration.

3. After thoracic operations and upper abdominal operations. The continuance of proper oxygenation post-operatively is essential in these circumstances.

4. In circulatory failure, cardiac complications, pulmonary œdema and embolism, atelectasis and headache after spinal anæsthesia. These are other post-operative complications in which oxygen is needed.

The post-anæsthetic observation room at the Mayo Clinic was started in 1942, and Dr. J. S. Lundy reports that increasing use is being made of its facilities.

At the new Hartford Hospital in Connecticut, the "P.A.R." contains 11 adult beds and four cots. The room is staffed by three specially trained nurses and an orderly. Also, one of the anæsthetists from the operating theatres spends half his time checking and recording the condition of the patients in the "P.A.R.". Immediately after operation, every patient goes into the observation room in his or her bed, and remains there as long as constant attention is necessary.

This system greatly enhances the care of the patient during the critical post-operative period, because not only does he have the constant attendance of staff trained in resuscitation work, but personnel from the department of anæsthesia are immediately available to cope with emergencies.

Let us now return to the particular deaths in Melbourne which we think were preventible, had the facilities which have been described above been immediately accessible. (I am indebted to Dr. K. M. Bowden for giving me access to his records and for allowing me to make use of his analysis.)

In recent papers Dr. K. M. Bowden and Dr. Eric Gandevia have discussed deaths under anæsthesia. Therefore, for the purposes of this paper, I shall cite only those cases in which the patient died after leaving the operating theatre. The list is not long; but the death of even one presumably healthy patient should point the need for improved post-operative facilities (Table I).

In their discussion on deaths under anæsthesia, Dr. Bowden and Dr. Gandevia have already drawn attention to the fact that it can be dangerous to start artificial respiration before the mouth and pharynx are cleared of

all vomitus, as this may be sucked into the trachea or bronchi.

It is noted also that after an accident with accompanying injury and shock, the emptying time of the stomach may be greatly delayed. Therefore, an effort should be made to empty the stomach before operation. This may be accomplished by means of a stomach tube or by causing the patient to vomit. If this is not feasible, vomiting should be anticipated, and all measures should be in readiness to cope with this emergency.

Alternatively, regional anæsthesia may be considered for some of these accident cases.

A few remarks may be made about some of the cases which are quoted above.

In Case IV a man with a mangled hand died in the ward from asphyxia after regurgitation of stomach contents; it appears from the notes that his condition was not noticed early enough by a skilled observer.

In Case V a boy died from asphyxia after inhalation of vomitus; it appears that artificial respiration was started before suction was carried out, and that there was some delay in instituting the various methods of resuscitation, the equipment being not immediately accessible.

In Case VII it is noted that the question of safety with curare is essentially a matter of pulmonary ventilation.

In Case VIII a woman died in the ward from hæmorrhage ten hours after operation. It seems that there was not sufficiently close observation of the patient and regular recording of the patient's pulse, blood pressure and respiratory rate; thus the deterioration in the patient's condition was not noticed.

All these cases show that there is an obvious benefit in having the patient in a specially equipped and staffed observation ward, where an emergency can be instantly recognized when it arises, and resuscitative measures can be promptly applied by skilled personnel.

So far, I have dealt with cases in which special post-operative care is needed. But a few remarks may be made about pre-operative care as a means of ensuring a smoother post-operative period for the patient, and perhaps of avoiding some of those post-operative complications which may lead to operative morbidity. These principles are well known; but the fact that deaths do occur indicates that they are not always adopted, and it may be well to state them. The anæsthetist should not only support the patient during operation, and post-operatively, but should have a planned order of pre-operative care. Dehydrated, undernourished or anæmic patients should receive adequate fluid, plasma or blood transfusions.

In accident cases, and in certain cases such as those of Cæsarean section or intestinal obstruction, the stomach may be emptied by means of a gastric tube which can be left *in situ* during operation. The use of a cuffed intratracheal catheter may aid in preventing the regurgitation of stomach contents.

Patients with excess secretions should have postural drainage and should be encouraged to cough up secretions pre-operatively.

Pre-operative physiotherapy should be given, including the education of the patient in post-operative breathing exercises *et cetera*.

Premedication should be adequate to give sleep the night before operation, and immediately before operation, to dispel apprehension, to facilitate induction of anæsthesia, to lessen secretion of mucus and yet not to make sputum more tenacious. Over-sedation, with consequent respiratory depression, must be avoided.

One should be informed about the patient's percentage of hæmoglobin and his blood grouping before operation. If the blood group is unknown, blood from a universal donor must be available.

For the operative procedure the anæsthetic drug or drugs chosen should be those which give adequate relaxation. They should be the least toxic to the tissues and cause the minimum depression to the respiratory mechanism. They should be non-irritant, so as to minimize bronchial congestion and secretion.

In a discussion on anæsthesia for the surgical treatment of tuberculosis, Dr. R. H. Orton has stressed two problems for the anæsthetist: (i) control of secretions in order to prevent the spread of infection; (ii) avoidance of anoxia.

Lastly, by careful observation and routine recording of pulse, blood pressure and respiratory rate, the anæsthetist will note any deterioration of the patient's condition, and so should take timely measures to combat this.

The post-operative care of the patient commences at the termination of the operation, while the patient is still on the operating table. During this time the patient must be supported with warmth, oxygen and fluids if necessary.

Ideally, especially as we do not have post-anæsthetic observation rooms, the patient should be almost awake at the end of the operation and before he leaves the operating theatre. The advantages of this are as follows: (i) The patient can cough and expel his secretions. (ii) There is not so much danger of inhalation of blood and vomitus. (iii) There is not so much risk of the tongue's falling back and causing asphyxia. (iv) There is not so much risk of the patient's slumping onto his face and becoming asphyxiated. (v) There is less risk of post-operative injury to nerves, pressure on pressure points, damage to eyes *et cetera*. (vi) If the surgical condition permits, the patient can take food and fluids earlier and become ambulatory more quickly. (vii) The possibility of the earlier institution of the "stir-up regime" of Waters (for example, changes of position, coughing and deep breathing exercises) may help to prevent atelectasis.

If the patient is not awake, the anæsthetist must be prepared to cope with possible post-anæsthetic vomiting, and by the use of suction and posture prevent the inhalation of vomitus. The anæsthetist must also see that the patient's airway is kept patent, so that there is an adequate respiratory exchange. If the patient cannot breathe spontaneously, manual inflation of his lungs by means of a mask and bag full of oxygen may be needed until his respiratory volume can be maintained at an adequate level.

After upper abdominal operations there is a high incidence of pulmonary complications, and since a fully movable lung is a safe lung, it is up to oxygen therapy to aid in maintaining adequate lung activity.

The post-anæsthetic complication of atelectasis is, in many cases, caused by a mucus plug in a bronchus. Therefore, if there are secretions in the pulmonary passages, they should be aspirated. If an intratracheal catheter has been used, tracheo-bronchial toilet can be carried out. If the patient's anæsthesia is light enough for him to cough, he can raise the mucus to the point where it can be reached by a suction catheter through the Magill tube. Temporary adoption of a Trendelenburg position may aid the suction of thick mucus. If the patient is too debilitated to cough, the intratracheal tube may be left *in situ*, so that suction may be carried out at intervals.

Should atelectasis develop, there is danger that the collapsed area will become infected. If the "stir-up regime" and treatment by penicillin and sulphonamides are not effective, tracheo-bronchial toilet should be carried out. If this fails bronchoscopic aspiration must be performed.

For the patient needing oxygen therapy, if the oro-pharyngeal nasal catheter or mask is not tolerated well, then the oxygen tent in one of its various forms should be available. By this means the patient may be given high concentrations of oxygen for hours, if need be, and should be gradually weaned away from these high concentrations only when he is capable of maintaining respiration at an adequate level.

Discretion should be exercised in the use of respiratory and circulatory stimulants.

Again, careful post-operative observation and recording of pulse rate, respiration rate, blood pressure and pulse pressure will keep us constantly aware of the patient's condition.

I should like now to describe to you how the Homeopathic Hospital, Montreal, a hospital of 120 beds, coped with the problem of providing a post-anæsthetic recovery room.

It was decided to combine the separate activities of a recovery room and blood bank, and thus make it economically feasible to employ a full-time specially trained and highly qualified nurse. A room near the surgical block was made available. As there are two operating theatres, provision was made for two beds, also a blood donor table and a recovery couch. In this room was assembled all the equipment necessary for resuscitation and for the routine post-operative care of the patient. This equipment included the following: (i) Suction equipment. (ii) Oxygen. Usually oxygen is administered by naso-pharyngeal catheters, but "B.L.B." masks and equipment for manually inflating the lungs by means of a mask and a bag full of oxygen are available. (iii) Equipment for tracheotomy and for laryngoscopic and bronchoscopic work. (iv) Trays of needles, syringes, drugs *et cetera*, ready for use. (v) Sterile trays and various solutions, for intravenous therapy. (vi) Electric bakers. (vii) A movable curtain to screen the patients when necessary, as male and female patients are treated in this room.

All equipment necessary to a blood bank is also available in this room. Blood can be collected and stored and blood-grouping and cross-matching can be carried out.

Student nurses serve in the "P.A.R." for two weeks in rotation and receive instruction in the immediate post-operative care of the patient. The recovery room is under the medical supervision of the chief of the department of anæsthesia, as it is believed that anæsthesia should include oxygen therapy, intravenous therapy and resuscitation work.

The hospital administrators state that this room has become an extremely valuable department of the hospital, and they wonder now how they managed without it.

In the United States of America the value of a recovery room is fairly widely recognized, although in many cases its attainment is still an ideal. For instance, at the present moment there is not as yet a recovery room at the Presbyterian Hospital, New York. But until one is made available, the hospital makes use of a shock team. This is composed of medical personnel, including a surgeon and an anæsthetist who are experienced in all forms of resuscitation. They have a resuscitation room in which all equipment is kept checked and in readiness for use. As the hospital is many storeys high, it does not take the team long, by means of express lifts, to move from point to point.

In the United States also the use of oxygen therapy has increased so much in recent years that some of the hospitals are finding that efficiency is increased by the centralization of supplies and authority in the department of anæsthesia.

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Reviews.

CLINICAL AUDIOLOGY.

IN the foreword to "Clinical Audiology" by Maurice Saltzman, it is considered that this book is "worthy of being deemed the pioneer text-book of a new medical speciality", the science of hearing.[1]

The first and second chapters deal with the physiology of speech, transmission of sound through the middle ear and its reception by the cochlea both in the normal and in the pathological states. In the third chapter, a very long one, the pathology, signs and symptoms of deafness are discussed under numerous categories according to the ætiology. Treatment, too, is included. The fourth chapter reviews hearing tests, their usefulness and fallacies, audiometry, testing in early childhood, percentage disabilities and malingering. This, although not a long one, is perhaps the most useful chapter of all. The book concludes with a short insufficient chapter on hearing aids.

There is an abundance of audiograms illustrating that portion of the text dealing with the physiology of sound reception, as well as the patterns found in deafness resulting from almost every conceivable ætiological factor.

The subject matter is presented in a concise, simple and very readable fashion. It is obviously the result of much thought and research in relation to a wealth of material over a number of years. But the impression is gained that some statements are made with insufficient supporting evidence. For example, after asserting that he has had the unique opportunity of taking the audiogram of a child deaf as the result of maternal rubella in the first trimester of pregnancy, the author goes on to say that this audiogram is almost typical of otosclerosis and concludes that probably "rubella institutes a pathologic process which is akin to that of otosclerosis". Actually his audiogram differs essentially from that of typical otosclerosis as depicted in his book. And, in any case, over a large number of rubella-deaf subjects in Australia the diversity of audiogram patterns is very evident.

The manual is worth reading by the otologist, but can scarcely be expected to fulfil the prediction in the foreword that it should become a standard text-book.

There are numerous typographical errors in the text.

RADIOLOGY OF THE SKULL.

YET another volume of the *Annals of Roentgenology* (Volume XIX) has been received from the publisher, Paul Hoeber, New York. The present volume is on "The Skull" and is edited by Dr. Max Ritvo; some of the chapters have been written in collaboration with Dr. A. Price Heusner.[2]

The letterpress is well supported by numerous high-grade illustrations of both the normal and the abnormal conditions to be met with in this region.

The book opens with a useful discussion on the technical aspects of radiography of the skull, with full descriptions of the bony structures as seen when projected onto an X-ray film in the various positions in both the adult and infant skull.

The second chapter deals with congenital, hereditary and developmental anomalies in a very thorough manner and the illustrations are numerous and adequate.

Traumatic and post-operative changes are seen more frequently in these days, owing to the increase in automobile and industrial accidents. The author points out that only 6% of fracture patients show no evidence of brain injury. Films show the location and nature of the bone injury and often help in the choice of treatment. The author recommends postponement of the examination in head injuries until the condition of the patient allows of the production of the best quality films in various positions. In suspected fractures the author considers that films should be taken in the antero-posterior, postero-anterior and both lateral projections (with stereoscopic views of the injured side), and in addition Towne's view and tangential views should be taken in cases of depression. The author points out that

[1] "Clinical Audiology", by Maurice Saltzman, M.D., with an introduction by George M. Coates, M.D., and a foreword by Matthew S. Ersner, M.D.; 1949. New York: Grune and Stratton. 9" x 6", pp. 214, with 82 illustrations. Price: $5.00.

[2] "Roentgen Diagnosis of Diseases of the Skull"; Monographic Atlases; Volume XIX; Annals of Roentgenology; by Max Ritvo, M.D.; 1949. New York: Paul B. Hoeber, Incorporated. 10¼" x 7¾", pp. 436, with 368 illustrations. Price: $6.00.

fracture lines may disappear in from six months to two years, while some fractures do not calcify at all.

Cephalhæmatoma is due to an extravasation of blood between the periosteum and calvarium and may be displayed in tangential views. Traumatic pneumocele is not uncommon after fractures involving the frontal sinus or cribriform plate. It may not develop for several days. In subdural hæmatoma the author has frequently noticed displacement of the pineal body. Post-operative defects are usually easy to detect and they may decrease in size with age, especially in children. Excellent illustrations of these conditions are given.

Osteomyelitis receives concise consideration and usually follows sinus infection. It may be in existence for some weeks before it is demonstrable by X-ray examination. The infection follows the diploë and may be extensive. Tuberculosis and syphilis are uncommon in the skull, but the author gives good descriptions of these conditions. Nutritional endocrine and metabolic disturbances frequently reveal skull changes, which are described in detail and well illustrated.

The author does not consider that the changes in the skull in renal rickets, Paget's disease, syphilis and osteomyelitis are pathognomonic, and the condition of the renal system and chemistry of the blood must be known before a diagnosis is made. The author has found a high proportion of sarcomatous degeneration in Paget's disease. Fibrous dysplasia is dealt with clearly and concisely. Other rare diseases are mentioned and illustrated.

An interesting chapter is included on the fœtal skull in pregnancy. The section on neoplasms is most interesting. Intracranial tumours generally are not demonstrable, but secondary changes are common. Pressure of the tumours and circulatory disturbances in the region of the tumour and in the cranial cavity and interference with the flow of ventricular fluid occur. The author notes that evidence of convolutional impressions is of more significance in adults than in children. He classes the changes in brain tumours under three main headings: (*a*) convolutional atrophy, separation of sutures, osteoporosis, changes in sella; (*b*) displacement of intracranial structures, for example, the pineal body; (*c*) calcified deposits, proliferation or absorption of bone, asymmetry of grooves and focal bulging of bones.

Cerebral angiography is dealt with shortly. The technique is described and the author lays stress on the difficulty of this class of work.

The references and bibliography at the end of each chapter are very comprehensive.

The work is an excellent one and should receive attention from all radiologists.

Notes on Books, Current Journals and New Appliances.

A BULLETIN ON NARCOTICS.

A NEW United Nations periodical publication, the *Bulletin on Narcotics*, which is prepared by the Division of Narcotic Drugs, Department of Social Affairs of the United Nations Secretariat, is part of the plan of the United Nations to carry on the valuable work formerly done by the League of Nations in the control of narcotics. *The Bulletin on Narcotics* is intended to be of immediate interest to members of the medical and allied professions, to public health officials, to professors and teachers, to manufacturers of chemicals and pharmaceuticals and to students of international affairs. It is to contain technical and scientific studies on narcotic drugs and articles on legislation and administration in various countries, as well as a bibliography listing current books and articles on these subjects. The first issue, which is dated October, 1949, is attractively produced and well illustrated; it contains articles on the international control of narcotic drugs, opium production throughout the world and methods of determining the origin of opium, the report of a commission of inquiry on the coca leaf, accounts of the fourth session of the Commission on Narcotic drugs and of the ninth session of the Economic and Social Council, and a calendar of the meetings of international agencies concerned with the control of narcotics. The bulletin will be issued four times a year for an annual subscription of two dollars. Payments of subscriptions may be made in other national currencies to the authorized sales agents for United Nations publications throughout the world. The Australian agent is H. A. Goddard Proprietary, Limited, 255A George Street, Sydney.

Books Received.

[The mention of a book in this column does not imply that no review will appear in a subsequent issue.]

"The 1949 Year Book of General Surgery (August, 1948-July, 1949)", edited by Evarts A. Graham, A.B., M.D.; 1949. Chicago: The Year Book Publishers, Incorporated. 7″ × 5″, pp. 710, with 216 illustrations. Price: $4.75.

Recent contributions to surgical literature.

"A Textbook of Obstetrics", by Bruce T. Mayes, M.V.O., M.B., B.S. (Sydney), F.R.C.S. (Edinburgh), F.R.A.C.S., F.R.C.O.G.; 1950. Sydney, Wellington and London: Australasian Publishing Company. 9″ × 6¼″, pp. 1062, with 537 illustrations, some of them coloured. Price: £5. 10s.

An attempt has been made to present the subject firstly for the student in a didactic fashion; secondly for the doctor as a practical guide.

"The Natural History of Bright's Disease: A Study from the Standpoint of Pædiatrics", by G. E. M. Scott, M.B. (Melbourne), L.R.C.P. (Edinburgh), L.R.F.P.S. (Glasgow); 1950. Melbourne: W. Ramsay (Surgical) Proprietary, Limited. 8½″ × 5½″, pp. 76, with one illustration.

Based on the study of 375 cases.

"Aids to Public Health", by Llywelyn Roberts, M.D. (Hygiene), M.R.C.P., D.P.H.; Sixth Edition; 1950. London: Baillière, Tindall and Cox. 6¼″ × 4″, pp. 320. Price: 6s. 6d.

Intended primarily to help medical students preparing for examinations in preventive medicine and public health, and also nurses and social workers who require a basic knowledge of the subject.

"Chemotherapy of Leukemia and Leukosarcoma", by William Dameshek, M.D., *et alii*. Pp. 55, with illustrations. Price: $4.75.

A reprint of an exhibit presented at the American Medical Association Convention, Atlantic City, June, 1949.

"Advances in Surgery", edited by William DeWitt Andrus *et alii*; Volume II; 1949. New York: Interscience Publishers, Incorporated. London: Interscience Publishers, Limited. 9″ × 6″, pp. 600, with many illustrations. Price: $11.00.

An account of progress in selected surgical subjects.

"The Common Diseases of the Skin: A Handbook for Students and Medical Practitioners", by R. Cranston Low, M.D., F.R.C.P.E., F.R.S.E., and G. A. Grant Peterkin, M.B.E., M.B., F.R.C.P. (Edinburgh); Fourth Edition; 1949. Edinburgh and London: Oliver and Boyd. 8¼″ × 5¼″, pp. 292, with 139 illustrations. Price: 21s.

A revised version of the third edition published in 1939.

"Report of the Medical Research Council for the Years 1945-1948"; Committee of Privy Council for Medical Research; 1949. London: His Majesty's Stationery Office. 9¼″ × 6″, pp. 284. Price: 5s.

A report covering a period of reorientation and reconstruction, as well as of expansion.

"Malariology: A Comprehensive Survey of all Aspects of This Group of Diseases from a Global Standpoint", edited by Mark F. Boyd. Volumes I and II; 1949. Philadelphia and London: W. B. Saunders Company. Melbourne: W. Ramsay (Surgical) Proprietary, Limited. 10″ × 7″, pp. 2464, with 436 illustrations. Price: £16 12s. 6d. a set.

"An integration of modern malaria research and practice."

"From the Hills: An Autobiography of a Pediatrician", by John Zahorsky, M.D.; 1949. St. Louis: The C. V. Mosby Company. Melbourne: W. Ramsay (Surgical) Proprietary, Limited. 8¼″ × 5¼″, pp. 392. Price: 42s.

A story from which the medical experiences have as far as possible been omitted.

The Medical Journal of Australia

SATURDAY, APRIL 22, 1950.

All articles submitted for publication in this journal should be typed with double or treble spacing. Carbon copies should not be sent. Authors are requested to avoid the use of abbreviations and not to underline either words or phrases.

References to articles and books should be carefully checked. In a reference the following information should be given without abbreviation: surname of author, initials of author, year, full title of article, name of journal without abbreviation, volume, number of first page of the article. If a reference is made to an abstract of a paper, the name of the original journal, together with that of the journal in which the abstract has appeared, should be given with full date in each instance.

Authors who are not accustomed to preparing drawings or photographic prints for reproduction are invited to seek the advice of the Editor.

AN ADVISORY COUNCIL ON HEALTH AND MEDICAL SERVICES FOR SOUTH AUSTRALIA.

FROM Adelaide comes the news of the setting up of an Advisory Council on Health and Medical Services to serve the State of South Australia. This news is of interest coming, as it does, so soon after the establishment of a similar kind of body in Western Australia. (See THE MEDICAL JOURNAL OF AUSTRALIA, December 31, 1949, page 951.) For South Australia the idea is not new—since July, 1943, it has had an Advisory Committee on Health and Medical Services. In May, 1943, the Minister for Health, the Honourable A. Lyell McEwin, sought to bring about the more effective coordination of the work of the various Government departments. He had, in addition to the Central Board of Health and the Hospitals Department, medical services associated with the Education Department, the Children's Welfare and Public Relief Department, the Police Department and the Railways Department. Medical problems also arose frequently in the work of the Engineering and Water Supply Department, the Department of Agriculture and the Factories Department. In other words, medical problems arose in practically all the public services of the State. In addition to the public service medical problems, matters pertaining to health often cropped up in the relationship of the voluntary and unofficial bodies with State organizations. The Minister thought that the establishment of an Advisory Committee would bring about much of the coordination which he deemed to be necessary. The South Australian Branch of the British Medical Association was asked to nominate a representative as member of the Committee, but it decided not to be represented. The Council stated in its annual report that the Branch was willing at all times to give its advice on any health matter when desired by the Government, but that it should retain its freedom as a professional body. (See THE MEDICAL JOURNAL OF AUSTRALIA, August 5, 1944, page 145.) Although in the light of present-day developments in the world of medicine the Branch decision may now be regretted, there is nothing to be gained by a discussion on the matter. No one will deny that the Advisory Committee did useful work and that the stage is set for the appearance of its successor, the Advisory Council.

The Advisory Council on Health and Medical Services follows the adoption by the Parliament of South Australia of the *Health and Medical Services Act*, 1949. When the Bill for the Act was read for a first time on November 15, 1949, it bore the title: "A Bill for an Act to Provide for the Establishment of an Advisory Council on Health and Medical Services, for the Appointment of a Director-General of Public Health and a Director of Tuberculosis, and for Other Purposes". The Council will consist of seven members and one of them is to be appointed by the Governor to be chairman. The members will comprise the Director-General of Public Health, the Director-General of Medical Services, the Principal Medical Officer of the Education Department, the Superintendent of Mental Institutions, the Director of Tuberculosis, a medical practitioner appointed by the Governor on the nomination of the South Australian Branch of the British Medical Association and a woman practitioner appointed by the Governor. The function of the Council is described in the following terms:

1. The Minister may refer to the Council for investigation and report:
   (*a*) any question relating to health, hospitals, medical services, the training and employment of any classes of persons whose work relates to the promotion of health or the treatment of disease or abnormality of the human body;
   (*b*) any proposals for new legislation relating to any of the matters hereinbefore referred to;
   (*c*) any matter incidental to any matter hereinbefore referred to.
2. It shall be the duty of the Council to inquire into all matters referred to it pursuant to this Act and to report thereon to the Minister.
3. In this section "medical services" includes treatment by medical practitioners, dentists, opticians, and physiotherapists, and the facilities for such treatment, and any other treatment for remedying disease or abnormality of the human body, and any measures for safeguarding public health.

One provision which will enable the Council to collect the data needed by it from time to time is that for the purpose of conducting any investigation and preparing any report pursuant to the Act the Council shall be deemed to be a royal commission within the meaning of the *Royal Commissions Act*, 1947; the chairman and members of the Council shall be deemed to be members of a royal commission; and the provisions of the *Royal Commissions Act*, 1917, are to apply in relation to the commission and its inquiries.

On the available evidence the new Advisory Council is the same type of body as its predecessor the Advisory Committee; but it has a new status and a new dignity. It has been created by special Act of Parliament, has been clothed with the powers of a royal commission and becomes, in fact, a statutory body. When the Advisory Committee was created in 1943, a statement by the chairman entitled "Medical Problems Ahead" was presented at the first meeting on August 23, 1943. The matters discussed in this statement included: The integration of health and medical services (somewhat reminiscent of "that blessed word Mesopotamia"); the control of infectious diseases; the control of tuberculosis; the control of venereal disease; general illnesses; supervision

of food supplies; health education; infant and maternal welfare; occupational disease; housing and health; sanitation; and so on. On September 3, 1943, the Honourable T. Playford, Premier of South Australia, in a broadcast address referred to the need for the adequate provision of modern health services for the people. He described as one of the first and most urgently needed works the establishment of a large modern infirmary on the outskirts of the metropolitan area. This, he said, would relieve the strain on the Royal Adelaide Hospital and would also provide a home for elderly people requiring institutional care. This was only one of the matters referred to by the Premier. That the new institution has not been provided is not the fault of the Advisory Committee. In all probability the new Council will not be able to do anything about it, because it can only advise on matters referred to it. At this stage we should refer to an investigation undertaken by a committee appointed by the South Australian Parliament in 1946 to inquire into and report upon the advisability of consolidating the health services of the State into a single department under a Minister of Health. The work of this committee was described in these columns on February 15, 1947. The committee, which included members of the South Australian Branch of the British Medical Association, did in fact recommend that a Department of Health and Medical Services should be established and should be under the control of the Minister of Health. It also recommended that a Commission of Health and Medical Services should be appointed to control and administer the department and be responsible to the Minister. The chairman of the Commission was to be the Director-General of Health and Medical Services. The Government departments and statutory bodies (and there were quite a number of them) which were to be administered by the Commission were set out. It was thought that the Department of Health and Medical Services should comprise several divisions—Public Health, Hospitals, School Health, Tuberculosis, Mental Health, Maternal and Child Health, and Dental Health. We pointed out in 1947 that these proposals were in accordance with modern thought and that they left little, if anything, to be desired. We also stated that if the proposals were adopted everything would depend on the man chosen to be head of the Commission of Health and Medical Services. The new Advisory Council is an advance on the Advisory Committee because, as already pointed out, it is a statutory body. The chief disadvantage under which it will do its work is that it can be concerned only with matters referred to it—this may be modified in practice, but the Act mentions only matters referred by the Minister. The South Australian Branch of the British Medical Association has a nominee on the Advisory Council in the person of Dr. L. Mallen, who will act as a representative of the medical profession. Those in the permanent employ of governments cannot do a great deal in the advocacy of reforms. It will rest largely with the South Australian Branch to watch the progress of the new body and, if necessary, to press for the changes envisaged by the committee appointed by Parliament in 1946. But always should it be remembered that it would be much better to continue with the present set-up than to have an incompetent or a mediocre man at the head of one large department.

Current Comment.

SOME PROBLEMS OF ANTIBIOTIC THERAPY.

A report by Leonard S. Sommer and Cutting B. Favour[1] of four cases in which penicillin therapy was followed by complicating pneumonia due to Gram-negative organisms does not bring forward a new phenomenon, but recent developments suggest that the problem needs to be looked at afresh. The same sort of thing was discussed at some length in these columns on December 20, 1947, with special reference to Weinstein's suggestion that in some persons a high degree of bacterial antagonism may exist in areas like the naso-pharynx and that certain groups of bacteria are kept in check by others; the specific antibacterial action of penicillin or streptomycin may upset this balance, and those organisms that are unaffected by the drug will increase sharply in number and possibly in virulence. In Sommer and Favour's cases two patients died from bronchopneumonia due to Gram-negative organisms developed after prophylactic and post-operative penicillin therapy given in association with gastro-intestinal surgery. The other two had pneumococcal pneumonia which was responding to penicillin therapy when they developed respectively pneumonia and septicæmia due to *Bacillus aerogenes* and pneumonia due to *Hæmophilus influenzæ*; fortunately both responded satisfactorily to streptomycin therapy. Sommer and Favour stress the importance of previous chronic pulmonary disease, of general debility and of the presence of a mixed Gram-positive and Gram-negative flora in cultures prepared from the respiratory tract in the pathogenesis of this type of infectious complication. They also point out that examination of a simple Gram-stained smear, prepared from the throat or sputum at the time of the sudden chill and rise in temperature during chemotherapy, may permit an immediate diagnosis and prompt institution of proper drug therapy. The routine use of a combination of penicillin and streptomycin from the start of serious respiratory infections or the use of sulphadiazine alone because it is effective against many organisms of the Gram-negative as well as of the Gram-positive group is not recommended, especially as the phenomenon illustrated by their four cases is not common. This is substantially the attitude of Weinstein which we mentioned in the previous reference. In support of this attitude appeal is made to the importance of intelligent therapy based on the known specificity of the antibiotics, to the need for avoiding unnecessary use of streptomycin and to the dangers of the development of drug-sensitivity by the patient or drug-resistance by the organism when an antibiotic has been used unnecessarily. These arguments are undeniable, and no one would attempt to justify the neglect of adequate bacteriological investigation, where this is at all possible, or the use of "shot-gun" therapy, a term now much more appropriate since to streptomycin and penicillin have been added at least two further antibiotics of major importance, namely, chloramphenicol ("Chloromycetin") and aureomycin. However, some support exists for the simultaneous administration of two or more antibiotics in appropriate cases. This practice is advocated and elaborated by Perrin H. Long *et alii*[2] in a paper presented at the annual session of the American Medical Association last year, and it was supported by those who took part in the subsequent discussion. It must not be thought, however, that Long and his colleagues countenance "shot-gun" therapy. On the contrary their paper contains a careful and concise summary of the specific indications for each of the four main antibiotics in accordance with present knowledge and usage. They set out in tabular form the antibiotics of choice for the treatment of infections of average severity, and recommend that if the infection is severe, combinations of equally effective, or primarily and secondarily effective,

[1] *The American Journal of Medicine*, October, 1949.

[2] *The Journal of the American Medical Association*, October 1, 1949.

antibiotics should be used. They consider this desirable for subacute bacterial endocarditis. If the infecting organism is a Gram-positive coccus, they believe that an adequate combination of penicillin, streptomycin and aureomycin should be used; if a Gram-negative organism is responsible, a proper combination of streptomycin, aureomycin and chloramphenicol should be given. In influenzal meningitis, gas gangrene and perhaps other infections, sulphadiazine should be added. It is pointed out that the sulphonamides and the several antibiotics act differently in relation to susceptible infecting microorganisms, and Long and his colleagues claim that the intelligent exploitation of this knowledge will result in prompt and satisfying cures of infectious diseases. The therapeutic superiority of judicious combinations over singly administered antibiotics was echoed in the discussion which followed this paper, and it must be respected if it is verified in the general experience. Nevertheless, the idea can be accepted in practice only with persistent and unqualified emphasis on the need for selection of antibiotics on a basis of accurate diagnosis bacteriologically confirmed. It requires little imagination to see the pitfalls that would otherwise be inevitable with their serious therapeutic and economic consequences.

TREATMENT OF LUNG ABSCESS.

THE intelligent use of antibiotics has made possible many modifications in the surgical treatment of infections. There are those who feel strongly the need to uphold the importance of surgical drainage, but all will agree that more conservative, and less mutilating, surgical procedures are to be encouraged if they are otherwise satisfactory. At the London Chest Hospital a "medical" regimen for the treatment of acute lung abscess has come into sole use; it consists essentially of postural drainage and penicillin therapy. This policy has been adopted only with caution, but results quoted by A. W. Sutherland and L. J. Grant[1] appear to justify it, though their series of cases is rather small. They report that in 32 consecutive cases of acute lung abscess, 25 patients were treated by postural drainage and penicillin alone, the penicillin therapy being divided into "high dosage" and "low dosage" groups; seven patients were treated by surgical drainage. Cure was obtained in 15 out of 19 cases in the high dosage group, in three out of six in the low dosage group, and in three out of seven cases in which surgical drainage was used. No pulmonary abscess has been drained surgically at the London Chest Hospital for the last two years. The two basic aims in the treatment adopted have been to overcome the infection and to empty the abscess cavity. In the overcoming of the infection experience has indicated that the optimal dosage of penicillin is 2,000,000 units daily of the calcium salt, given in four intramuscular injections at six-hourly intervals; this dosage was usually necessary for not less than three weeks and seldom for more than four weeks. Treatment for the emptying of the cavity was given under the supervision of an experienced physiotherapist, after careful determination of the pulmonary segment involved and the best anatomical position for postural drainage. At first many hours a day, and sometimes the hours of sleep, must be spent in the correct posture. As the sputum lessens in amount, six periods of thirty to forty-five minutes may suffice, with gradual decrease till the cavity disappears. Chest percussion by the physiotherapist helps. General measures—good diet, high vitamin intake, iron therapy, sometimes blood transfusion—are important, as well as general therapy and early getting of the patient out of bed. Progress should be rapid with almost complete radiological evidence of resolution by the fourth week. If a cavity still exists at this stage the likelihood of a chronic abscess is great. In the final assessment of cure, freedom from cough and sputum, normal temperature, radiological evidence of healing, and absence of damage to lung parenchyma and bronchi are essential. Bronchography and tomography are of value in the final assessment, and follow-up is most important. These exacting criteria have been adopted by Sutherland and Grant in their series, so that although the numbers of cases are relatively small, their claims appear to be well supported. To the other advantages of non-surgical treatment they add the considerable lessening in the period of disability as compared with the prolonged and trying post-operative period following surgical drainage. They feel that as energetic postural drainage and high penicillin dosage become increasingly used, surgical drainage will be regarded as obsolete; chronic complications will be minimized, and those that arise will be readily curable by radical, not palliative, surgery carried out on patients who are in the best condition to receive it. This seems a very desirable state of affairs. Others, no doubt, are following the same lines of therapy as Sutherland and Grant, and it would be interesting to know if they are obtaining similar results.

[1] *The Lancet*, March 25, 1950.

JOHN MILTON'S BLINDNESS.

JOHN MILTON became completely blind in 1652, being then in his forty-fourth year. In the remaining twenty-two years of his life he produced his greatest works, "Paradise Lost", "Paradise Regained" and "Samson Agonistes". During the eight to ten years in which he was going blind, he became short-tempered and irritable and wrote much of his most unseemly and violent prose, his other important poems "Lycidas", "L'Allegro", "Il Penseroso", "Comus", "Arcades" and the ode "On the Morning of Christ's Nativity" having appeared during his earlier years. The correspondence of the changes in his sight with variations in his personality and with particular phases of the expression of his genius is rather striking, though it could be only a superficial association or indeed entirely coincidence. Lambert Rogers,[1] who has given this matter much thought for some years, suggests that the association may be highly significant and able to throw light on the vexed problem of the cause of Milton's blindness. His hypothesis is that Milton suffered from a suprachiasmal cystic tumour which "died", but destroyed his optic nerve fibres in doing so. Rogers had as a patient a bootmaker from whom he removed a parapituitary craniopharyngioma that had been causing chiasmal and hypothalamic pressure. The history of the bootmaker's condition appears to be parallel with the history of Milton's blindness that can be reconstructed from his own writings and from contemporary evidence. In both cases visual defects first appeared at the age of thirty-six years, the first effect being temporal hemianopia; there was no outwardly visible change in the eyes; "phosphenes" were present, with pain behind the eyes, personality changes in the direction of irritability and bad temper, and gastro-intestinal upsets. Milton's condition progressed to complete loss of sight in some eight years, a tragic state for him which he laments in his noble ode on his blindness:

> . . . that one talent which is death to hide,
> Lodged with me useless . . .

The bootmaker underwent operation five years after the onset of his visual failure, when he was blind in the left eye and had lost the temporal field in the right; the condition was halted, and some sixteen years after the operation his remaining half visual field allowed him to get about and to read with the aid of a glass. Had he not been operated upon, Rogers suggests, "it is highly probable that like Milton he would have spent the latter part of his life in darkness—'light denied' ". As Rogers says, the conclusion is certainly tempting that they had identical lesions. We cannot know this, of course, and Rogers does not presume to be dogmatic, but anyone who will read his gracefully written paper must agree that he has put forward a convincing case with much more detailed literary and clinical evidence than our brief reference might suggest.

[1] *Journal of the History of Medicine and Allied Sciences*, Volume IV, page 468.

Abstracts from Medical Literature.

DERMATOLOGY.

Colloid Milium.

H. HAILEY (*Archives of Dermatology and Syphilology*, December, 1948) reports two cases of colloid milium. He states that the question of vitamin *C* as an ætiological factor is problematic. Subjective symptoms were absent in both cases. The lesions were prevalent on the face, the ears, the sides of the neck and the dorsa of the hands. They were elevated and yellowish-red and varied from one to five millimetres in diameter. In some areas the lesions were discrete, while in others they were closely packed together. It was readily seen that the lesions were not true vesicles. Benign cystic epithelioma, hydrocystoma and *lymphangioma circumscriptum* are the conditions most likely to be confused with colloid milium. Curettage followed by keratolytic dressings brought about the most satisfactory destruction of the lesions. X-ray therapy was valueless. Treatment with ascorbic acid for approximately five months failed to effect improvement in one case. Protective measures against sunlight offer the best possibilities of favourable results.

Mepacrine Drug Eruption Affecting a Tooth.

G. A. PETERKIN (*The British Journal of Dermatology and Syphilis*, August-September, 1949) states that since 1944 many papers have been written on tropical lichenoid dermatitis or drug eruption due to mepacrine. It has been demonstrated that this drug can cause not only a generalized eruption affecting the skin and mucous membranes, but other manifestations, such as deep pigmentation of the nail-bed, the hard palate, the gums, and the cartilage of the nose, ears and trachea. So far as the author can find, however, there has been no description of the teeth being involved. He records a case in which this happened.

Chronic Eczema as a Variant of Dermatitis Herpetiformis.

S. GORDON AND L. J. A. LOEWENTHAL (*The British Journal of Dermatology and Syphilis*, November, 1949) present the hypothesis that many cases of so-called endogenous eczema, idiopathic eczema, have certain similarities to *dermatitis herpetiformis*, that they represent in fact the common form in which this disease manifests itself, and that the accepted text-book descriptions of *dermatitis herpetiformis* comprise only the rare variants of a common disorder. In so-called idiopathic eczema no contact factor can be incriminated, no pathogenic organism isolated and no food or drug allergy proved. If accounts of chronic eczema and *dermatitis herpetiformis* are studied certain points of resemblance are apparent. The authors give a comparative table of authoritative pronouncements on the two diseases, which they consider will clarify their essential similarity. They present case histories representing a selection from 69 cases in which the diagnosis of eczema could have been made in conformity with accepted standards. They include cases which could be described as *eczema erythematosum, papulosum, vesiculosum* and *pustulosum*; and cases which resembled chronic disseminated neurodermatitis, nummular eczema and even exfoliative dermatitis. All patients had suffered from eczema for more than six months and most for several years. Pigmentation was present in every case. In no chronic case did the patient remain constantly affected to the same degree. Amongst the clinical types were atopic, dry and exudative forms, œdematous and hypertrophic. Response to arsenic or sulphapyridine was manifest in all cases. It is suggested that *dermatitis herpetiformis* represents only the severer form of a common disorder hitherto called chronic idiopathic eczema.

Pyoderma Vegetans in Association with Chronic Ulcerative Colitis.

L. A. BRUNSTIG AND L. J. UNDERWOOD (*Archives of Dermatology and Syphilology*, August, 1949) state that one of the most dreaded complications of chronic ulcerative colitis is the fulminating ulcerative process of the skin known as *pyoderma gangrenosum*. In such cases the skin is hypersensitive to trauma and infection, the lesions proceed in accordance with the degree of activity of the colitis and the prime factor in successful treatment consists of control of the underlying disease. Occasionally other complications of the skin occur, such as furuncles or episodes of *erythema nodosum* and *erythema multiforme*. The purpose of the authors' report is to record five cases in which chronic ulcerative colitis was associated with a recalcitrant pyogenic process of distinctive pattern, resembling *pemphigus vegetans* or *dermatitis vegetans*. Sites of the lesions were the mouth, external nares, axillæ, genito-crural area, fingers or toes, face and neck, umbilicus, breast and scalp. All these areas were not involved in each patient. In all cases the patients responded slowly, if at all, to treatment. Improvement of the general health of the patient and control of the underlying colitis appeared to be of great importance. The conditions in the cases reported suggested *pemphigus vegetans*, but the absence of supportive observations of bullæ, the lack of the usual pemphigus type of constitutional symptoms and the continued observation of, and definite association of various conditions with, chronic ulcerative colitis made this diagnosis untenable. These cases were distinguished by the fact that chronic ulcerative colitis was found to be an ætiological factor common to all of them. Improvement of the patient's general health and control of the colitis are of fundamental importance in treatment.

A Severe Form of Acne Developing in the Tropics.

F. C. NOVY (*Archives of Dermatology and Syphilology*, August, 1949) states that in the recent war acne was a close second to fungous infections amongst naval patients being evacuated from the tropics because of cutaneous disease. The disease differs in many respects from the adolescent type of *acne vulgaris*. It is, nevertheless, a definite form of acne in that comedos, inflammatory nodules, cysts and pustules associated with sebaceous glands are present. Furunculosis, impetigo and pyoderma are frequent complications, but the lesions of acne are the primary ones. In the order of frequency the sites involved were the back, chest, neck (posterior, anterior or lateral), arms and forearms, face and buttocks and thighs. Deep-seated cystic acne was the rule amongst those with tropical acne. It has many features in common with *acne conglobata*; however, tropical acne is an acute disease, while *acne conglobata* is a chronic one. Numerous large comedos were found in the involved areas. Nodules were present rather than papules. They became very painful when secondarily infected. The nodules would rupture, discharging a thick white or greenish pus and blood. On the shoulders and chest extensive hypertrophic scarring was noted. Tropical acne is not limited to the male sex. The ætiology is unknown. The hot, humid climate of the tropics appears to be the most important cause of this disease in persons with acne or seborrhœic diathesis. While the patients remained in the tropics the condition became progressively worse. For treatment, daily baths and the use of a paste containing 2% of resorcinol and 10% of precipitated sulphur were found useful. Exteriorization of the cysts and pustules and packing with iodoform gauze produced smooth, flat scars instead of scars of the thick, hypertrophic type. With these methods and X-ray therapy many patients manifested clearing of the skin. Some, however, have continued to acquire new lesions, having been out of the tropics for two years. It is impossible to predict who is likely to acquire tropical acne on going to hot climates.

Aureomycin in Molluscum Contagiosum.

W. H. GUY, F. M. JACOB AND W. B. GUY (*Archives of Dermatology and Syphilology*, October, 1949) have treated a patient with a generalized eruption of *molluscum contagiosum*. There was a history of the appearance of a dozen or so lesions on the trunk at first, and of the condition's becoming generalized a few days after a massage in a Turkish bath. They prescribed aureomycin, 250 milligrammes twice a day, by mouth for two days. Four days after the treatment with the drug had been stopped, the lesions were almost flat. In another week nothing was left of the lesions but pigmented macules; in the following week there was no sign of recurrence. Attention is called to the possibility of using this drug in *molluscum contagiosum* and in other conditions presumably of virus origin, such as *verruca vulgaris*, juvenile flat warts and plantar warts.

Stevens-Johnson Syndrome with Severe Pulmonary Involvement.

R. L. OLSEN, C. BARRON AND J. N. SLEDGE (*Northwest Medicine*, April, 1949) state that *erythema multiforme exudativum*, or Stevens-Johnson syndrome, is a familiar and usually benign acute systemic disease, involving primarily the skin and mucous membranes of the eyes, respiratory tract and urethral meatus. It usually runs a self-limited course of several days to several weeks with a tendency to recurrences. It is generally considered to be an air-borne disease, probably due to a virus. Few authors, however, have stressed the association of pneu-

monia with the Stevens-Johnson syndrome or the occasional fatality that does occur, despite intensive chemotherapy. Staynon and Warner reported a series of seventeen severe cases, in fourteen of which non-bacterial pneumonia occurred with two fatalities. They concluded that the pneumonia was probably viral in type. It is conceivable that in the Stevens-Johnson syndrome the mucosa of the tracheobronchial tree is involved in a vesicobulbous eruption identical with that seen in the mouth and that desquamation and obstruction may occur. The authors describe a case of Stevens-Johnson syndrome with characteristic involvement of the conjunctiva and oral mucosa. Penicillin did not appear to alter the course of the disease, although definite improvement occurred following administration of sulphadiazine and streptomycin.

Multiple Squamous-Cell Carcinoma of the Skin Associated with Chronic Lymphatic Leuchæmia.

A. R. AXELROD AND L. BERMAN (*Archives of Dermatology and Syphilology*, October, 1949) have observed a patient who exhibited multiple squamous-celled carcinoma of the skin associated with chronic lymphatic leuchæmia. They report the case because of the apparent rarity of the combined malignant conditions and also because the patient received urethane therapy and showed clinical and hæmatological response, as well as definite changes in a squamous-cell carcinoma of the skin; these occurrences may be attributed to the urethane therapy. The changes in the squamous-celled carcinoma of the skin were characterized by necrosis, with sloughing of the superficial part of the tumour and a decided increase of the fibroblastic stroma with lateral extension of the mass.

UROLOGY.

Malignant Tumours of the Testis.

M. M. MELICOW (*The Urologic and Cutaneous Review*, December, 1949) states that a review of 90 cases of testicular neoplasm at the Squier Urological Clinic, Columbia University, between 1928 and 1948 reveals that the shortest duration of symptoms was two days, the longest forty-six years, and the average was four months among patients applying for treatment. In more than half the cases the scrotal mass had been present for more than one year. Two patients had had "an enlarged testis" for very many years, while one said it had been there all his life; he was forty-six years old. Delay in reaching diagnosis was due to (*a*) unawareness by the patient of the presence of an enlarged testis, (*b*) ignorance or fear on his part as to the meaning of the scrotal mass, (*c*) failure by the physician to examine the genitalia, and (*d*) incorrect diagnosis. Difficulties in making the diagnosis of testicular neoplasms arose when the intrascrotal mass was (*a*) small, (*b*) located close to and compressing the epididymis at the upper pole of the testis, (*c*) associated with degenerative changes resulting in the presence of a cystic mass, and (*d*) occurring late in life. The following erroneous diagnoses were made in the presence of testicular neoplasms: (*a*) thick-walled hydrocele, spermatocele, or hæmatocele, particularly when the onset of symptoms was acute, (*b*) hæmatoma of torsion, particularly with a history of severe trauma, (*c*) non-specific epididymo-orchitis when the lesion was small and at the top of the testis, and (*d*) tuberculous epididymo-orchitis. The clinical diagnosis of a well-advanced neoplasm of the testis should be easy. The presence in the scrotum of a unilateral, hard, painless, non-transilluminating mass in a male between twenty and forty years of age is presumptive evidence of malignant disease. A general physical examination and radiography of the chest and abdomen, including excretion pyelography, help to rule out the presence of metastases. A positive Aschheim-Zondek reaction suggests the presence of cells in the tumour which produce gonadotropic elements, whose excess is excreted in the urine. Examination of the *vas deferens* is most important. The vas usually remains normal in malignant tumours of the testis, while in pyogenic epididymo-orchitis and in epididymotesticular tuberculosis it is thickened, irregular and beaded.

Tumours of the Bladder.

W. C. STIRLING AND J. E. ASH (*The Journal of the American Medical Association*, December 10, 1949) present a study of 100 consecutive cases, not a solution of the problem of the proper treatment of vesical neoplasms, but as an expression of this experience. They have an open mind about such radical procedures as complete cystectomy, but are nevertheless inclined to radicalism. It is generally agreed that growths of the vault, that is, in the upper hemisphere of the organ, are best treated by segmental resection of the bladder. Unfortunately, only one-quarter of all cases occur in the high situation, and the choice of treatment for the usual growths lies between total cystectomy, interstitial irradiation, per-urethral resection, electro-coagulation and deep radiation therapy. The degree of infiltration of the bladder wall and the possibility of extramural spread are points for practical determination. Short of suprapubic opening for this purpose, bimanual palpation under anæsthesia, with the cystoscope in position, is very useful. If the tumour extends through the bladder wall prognosis is generally bad. However, it has been observed that even in some of the advanced cases simple diversion of the urinary stream affords a degree of comfort not produced by other methods. Morphologically over 90% of vesical neoplasms are papillary. This is important, because although some papillomata are single and readily eradicated, most are multiple and show a persistent tendency either to recur or to develop at new sites. Periodic endoscopic inspection is therefore vitally necessary.

Urecholine in Vesical Dysfunction.

L. W. LEE (*The Journal of Urology*, September, 1949) publishes a preliminary report on the urethane of β-methylcholine chloride, a choline ester which acts primarily as a parasympathetic stimulant. It is called urecholine for short. When administered in therapeutic dosage, orally or subcutaneously, it has little or no effect on the heart rate, blood pressure or peripheral circulation of normal patients. It increases peristalsis and stimulates micturition. The author's studies were carried out on patients with normal bladders, and on those with chronic hypotonic dysfunction and with acute post-operative urinary retention. The cystometrographic method was employed. In most instances the drug was found to act as a powerful detrusor stimulant in all the three groups mentioned. The authors consider that it answers the need for an effective agent, free from severe side reactions, to decrease vesical capacity, increase vesical tone and contractility, and reduce the amount of residual urine in certain cases. The following schemes of management are suggested. For chronic hypotonic dysfunction, 10 to 20 milligrammes of urecholine should be given orally every six to eight hours; the drug has been continued for as long as three months without evidence of harmful effect. For acute post-operative retention of urine, 10 to 20 milligrammes of urecholine should be given orally or five milligrammes subcutaneously, the dose being repeated if the patient does not pass urine in thirty minutes; a catheter should be passed if the second dose is not successful. The authors state that there are definite contra-indications to the use of urecholine. Intramuscular or intravenous administration should be avoided, as severe reactions may occur, notably headache, sweating, circulatory collapse, fall in blood pressure, abdominal cramps and diarrhœa. The antidote for such reactions is atropine. The drug should not be given if any bladder-neck or urethral obstruction exists.

Prognosis of Testicular Tumours.

H. R. SAUER AND E. M. BURKE (*The Journal of Urology*, July, 1949) state that only a large amount of clinical material, followed over a long period of time, can be used as a basis for estimating prognosis of testicular tumours. In the institution where this study was made, 202 cases of testicular tumours were recorded in the twenty-five year period up to the end of 1946. The cases were analysed, and an attempt was made to correlate the histopathological findings and the course of the disease. Of the 202 cases seminoma occurred in 47%, embryonal carcinoma in 35%, choriocarcinoma in 1·5% and teratocarcinoma in 13%; the rest of the tumours were miscellaneous types. The end results of the series show at present that 96 patients are alive and well, two are alive but with the disease, 96 died of the disease, three died of other causes, and in six cases the follow-up was incomplete. This represents an over-all cure rate of 47·5%. The percentages of over-all cures in various types of the disease are as follows: adult teratoma, 80; seminoma with moderate or abundant lymphoid stroma, 69·3; seminoma with little or no lymphoid stroma, 42; teratocarcinoma, 44·4; embryonal carcinoma *plus* seminoma, 46·7; and embryonal carcinoma pure or with other malignant cell structures, 22·5. Hormonal activity, rate of growth and degree of radiosensitivity of a testicular neoplasm represent biological properties which may assist in evaluation of the prognosis. From this study it is concluded that any patient surviving for over five years is fairly safe from the possibility of recurrence.

British Medical Association News.

SCIENTIFIC.

A MEETING of the New South Wales Branch of the British Medical Association was held at the Saint George Hospital, Kogarah, New South Wales, on December 1, 1949. The meeting took the form of a number of clinical demonstrations by the members of the honorary medical and surgical staffs of the hospital.

Tuberculous Empyema.

DR. C. G. BAYLISS presented a boy, who, at the time of his admission to hospital in November, 1948, had been aged sixteen years. He had had a febrile illness for six days, with cough and pain in the chest. Twelve months previously his brother had been diagnosed as suffering from pulmonary tuberculosis, but X-ray examination of the patient's chest at that time was said to have revealed no abnormality. X-ray examination two days after his admission to hospital revealed hydropneumothorax on the right side, with fairly complete collapse of the right lung. Straw-coloured fluid was aspirated from the pleural cavity on the same day, and from that fluid tubercle bacilli were recovered. A diagnosis was made of tuberculous pleural effusion. As it was believed that the result of a Mantoux test carried out twelve months previously had been negative, it was thought probable that the effusion had followed the development of a subpleural primary tuberculous focus in the lungs. The patient's temperature gradually dropped to normal in about three weeks, although occasional rises occurred subsequently. The pleural fluid gradually became turbid and then frankly purulent. Tubercle bacilli were later recovered from the patient's sputum. Treatment consisted of repeated aspirations. In February, 1949, a course of "P.A.S." was commenced, the drug being administered intrapleurally twice a week for four weeks. As much fluid as possible was aspirated immediately before each instillation of "P.A.S.". Early in March the administration was commenced of half a gramme of streptomycin daily. At the end of March the empyema was still present, fluid was still accumulating and the lung showed no sign of expansion. More radical treatment was considered necessary, and the patient was transferred to the Royal North Shore Hospital. Bronchoscopy was performed by Dr. M. P. Susman at the end of April; no evidence of bronchial blockage was found. Continuous suction drainage, at first through a pneumothorax needle and later through a tube attached to a Roberts pump, was instituted and continued for several weeks. The lung still failed to expand, and in July Dr. Susman carried out decortication of the lung with removal of the thickened visceral pleura. Decortication was not complete, most success being achieved over the lower portion of the lung; expansion of the lung base followed, but the apex remained collapsed. In September Dr. Susman removed the first and second ribs, thus completing a six-rib thoracoplasty. At the time of the meeting the patient's general condition was good and he felt very well. There was still a small draining sinus present, but ultimate closure was expected.

Cavernous Sinus Thrombosis.

DR. E. R. FIGTREE presented a girl, aged seventeen years, who three days before her admission to hospital had noticed a "pimple" at the left corner of her mouth. The raised pustular head had been lifted off with forceps and hot bathing commenced. The day before her admission to hospital the upper lip and the left side of the face began to swell, and when examined in hospital she was found to have much swelling and tenderness on the left side of the face, with proptosis of the left eye and swelling of the lids. Tenderness was present down the left side of the neck, but no thickening of the left jugular vein could be felt. Treatment was commenced immediately with penicillin, heparin, soluble sulphadiazine and intravenous fluid administration. On the next day dicoumarol was administered, and two days later streptomycin therapy was commenced. A pure culture of *Staphylococcus aureus*, coagulase-positive and penicillin-sensitive, was recovered from the initial lesion. The condition slowly subsided, and twenty-four days after the original admission to hospital the patient was well except for an occasional morning headache and residual ptosis of the eyelid. The proptosis had almost completely disappeared.

Arthritis with Subcutaneous Nodules.

DR. J. S. BOXALL presented a middle-aged man who had suffered from painful joints for eight or nine years, the process having started in the fingers and then spread to the wrists, elbows and feet. Lumps had been developing all over the body for the past twelve years; these broke down and discharged white material. Examination of a biopsy specimen of one of the nodules had revealed fibrous tissue infiltrated with amorphous material and a few cholesterol crystals, findings consistent with a gouty tophus. X-ray examination revealed "osteoporosis and joint destruction due to rheumatoid arthritis". The blood uric acid content was within normal limits. The erythrocyte sedimentation rate was considerably increased. The results of Wassermann, Eagle and Kahn tests were negative. The blood contained 4,100,000 erythrocytes and 8200 leucocytes per cubic millimetre, the hæmoglobin value being 11·3 grammes *per centum*. In November, 1949, the patient was considered to have severe and active rheumatoid arthritis. For treatment he had received a diet of low purine content, colchicum and salicylates, and "Myocrisin". The condition had remained stationary for over eighteen months.

Subacute Bacterial Endocarditis.

Dr. Boxall's second patient was a man, aged thirty-two years, an invalid pensioner. He had suffered from acute rheumatic fever ten years previously. Two weeks before his admission to hospital on November 5, 1949, he had begun to feel "off colour" and tired, with night sweats, rigors and pains in both knees and the back. He suffered from dyspnœa of effort, which had progressed to nocturnal orthopnœa. On examination he was found to have an apex beat in the sixth left intercostal space, five inches from the mid-line, presystolic and systolic murmurs in the mitral area, systolic and diastolic murmurs in the aortic area, and an accentuated second pulmonary sound. His liver was palpable and he had cyanosis of the lips and ears with a pronounced malar flush; his temperature was normal, but a daily rise above normal was found to occur. Four days later his temperature rose to 101·8° F., and blood culture revealed the presence of *Streptococcus viridans*. He was being treated with penicillin, heparin and dicoumarol.

Dementia Paralytica.

Dr. Boxall then presented a man, aged fifty-five years, an iron worker and an old soldier. In February, 1947, he had collapsed and been taken to the Mental Hospital, Callan Park, where he was given malaria therapy, arsenicals and bismuth until October, 1947. Treatment was carried on subsequently at a government clinic for two years. In February, 1949, deterioration of eyesight had caused him to visit an optician, who noticed the presence of Argyll-Robertson pupils and referred him to hospital. On being questioned at that time, the patient said that he had had two blackouts in the past three months, his legs were unsteady and pains occurred in them at times. On examination, he was euphoric and shallow-minded. Pain sense had been lost over the *tendo Achillis*, and his pupils were of the Argyll-Robertson type, of moderate size and slightly irregular. No other abnormalities were found in his nervous system. The Wassermann reaction was obtained from his blood. His cerebro-spinal fluid contained 30 milligrammes of protein *per centum*, and the Lange gold curve was represented by the figures "55555554100". The result of the Eagle test was negative. He was treated with *Hydrargyri Biniodidum*, penicillin, bismuth and bismuth salicylate. Dr. Boxall pointed out that, if untreated, *dementia paralytica* ran its course in three to five years. The usual treatment included iodides, penicillin 4,000,000 to 5,000,000 units, pyrexia, arsenic and bismuth or tryparsamide. The prospects of arrest for the patient presented were good, but he would need supervision for at least five years.

Reiter's Disease.

DR. R. W. THOMPSON presented a man, aged twenty-seven years, who, when first examined, had had a history of urethral discharge for two weeks, a swollen left ankle for one week and conjunctivitis since the day after the appearance of the discharge. He had previously suffered from urethritis on two occasions. On examination, he was found to have lesions of *keratodermia blenorrhagica* around the external urethral meatus, with evidence of bilateral seminal vesiculitis and many pus cells in a urethral smear. The diagnosis was made of non-specific urethritis with Reiter's syndrome. The result of a gonococcal complement deviation test was reported as "weak positive". Treatment was instituted with neoarsphenamine, 0·45 gramme given intravenously twice a week, massage of the prostate and seminal vesicles, and physiotherapy for the ankle. A course of 10,000,000 units of penicillin was given later. For the first two weeks the patient was quite ill, and his temperature ranged between 99° and 102° F. He developed corneal ulcers

and keratitis of the left eye. On his discharge from hospital two months after he had come under treatment, all symptoms and signs had subsided. Dr. Thompson pointed out that the essential feature of the patient's condition was the chronic seminal vesiculitis, the clearing up of which with prostatic massage, local treatment and intravenous arsenic therapy resulted in a subsiding of the metastatic phenomena in the joints, eyes and *glans penis*. The skin lesions on the glans were characteristic of the full syndrome; those lesions had been previously described as *keratodermia blenorrhagica*, but the adjective *"blenorrhagica"* was misleading, as there was no question of a gonorrhœal origin. The "weak positive" result from the gonococcal complement deviation test should be disregarded.

Intussusception with Gangrene.

DR. G. F. ELLIOTT presented a man, aged nineteen years, who had been admitted to hospital with a diagnosis of acute appendicitis. On the previous afternoon he had experienced sudden severe mid-line abdominal pain, which had persisted up to the time of examination. He had vomited six times. Examination of the patient revealed a furred tongue, and tenderness and rigidity of the abdomen, greatest in the right iliac fossa. Rectal examination revealed a tender mass suggestive of a tense, thickened appendix. Laparotomy was performed, and a gangrenous ileo-ileal intussusception was found lying in the pelvis. This was resected, and a side-to-side anastomosis was performed. The patient's recovery was without significant interruption. The hospital pathologist, Dr. A. E. Gatenby, reported the presence of a hard mass produced by an intussusception approximately 21 centimetres in length. Four centimetres above the main intussusception the bowel wall was invaginated upon itself to a depth of nine centimetres, forming a secondary intussusception. The external layer of the intussusception consisted of paper-thin bowel wall with numerous lymphoid nodules about 1·5 millimetres in diameter. The layers of bowel wall inside each intussusception were gangrenous. No macroscopic cause for the condition could be seen. In the mesentery at the neck of the main intussusception there were three firm lymph glands, microscopic examination of which revealed inflammatory hyperplasia. The lymphoid nodules on the bowel wall appeared to be hypertrophic Peyer's patches bulging into a very stretched mucous membrane.

Pleuro-Hepatic Abscess Treated with Emetine.

Dr. Elliott's second patient was a woman, aged thirty-five years, who had been admitted to hospital in April, 1948, with a diagnosis of salpingitis or appendicitis, and discharged in the following month with a diagnosis of appendicitis and chronic lung abscess consequent on long-standing bronchiectasis. She was readmitted to hospital in October, 1948, and at laparotomy a completely "frozen" pelvis was found; even the uterus could not be identified in the massed coils of small-bowel adhesions. At the end of the first week after operation the wound partially broke down, and salmon-coloured purulent fluid was discharged. The wound was counter-drained, and the patient left hospital in January, 1949. She was readmitted a month later, febrile and complaining of pain in the right hypochondrium and loin. The liver and spleen were both much enlarged. It was thought that she might have pyæmia and/or lardaceous disease, on account of the long history of lung infection. The result of blood cultures was negative, and the result of a Congo red test did not support a diagnosis of amyloidosis. The result of a Graham's test was normal. Her condition was then investigated by Dr. Pfeiffer, who found bilateral infected hydronephrosis. Repeated investigations revealed no tubercle bacilli in the urine or in the sputum. Her condition deteriorated steadily, and she required several blood transfusions. In June she complained of a painful, tender swelling in the eighth right intercostal space, which soon extended and became fluctuant. It was incised, and as bile was present in the discharge from a sinus which quickly developed, a radiological examination was made after injection of lipiodol. This indicated the presence of a liver abscess some two inches in diameter. During all this time she had been receiving penicillin (in all 23,000,000 units) as well as a course of streptomycin without any improvement. By the end of August her condition was desperate; she was emaciated and anæmic, with constant severe pain in her back. A blood count revealed 2,600,000 erythrocytes and 14,400 leucocytes per cubic millimetre, and a hæmoglobin value of 49%. It was then decided to give emetine, one grain daily, by intramuscular injection for ten days. That was begun on August 26. Improvement was dramatic, the sinus closed rapidly and her general condition improved so quickly that she was out of bed for the first time for many months on September 7. The hæmoglobin value was then 73%, and by October 25 it had risen to 85%. The sinus had remained healed, and she had gained about three stone in weight. Dr. Elliott pointed out that there was no history of dysentery, the patient had never been out of New South Wales, and no amœbæ were recovered from the fæces or discharge.

Embolectomy.

Dr. Elliott's third patient was a man, aged fifty-four years, who had had auricular fibrillation and an enlarged heart for some time prior to his admission to hospital. Two hours before his admission on April 10, 1949, he experienced sudden severe pain behind the left knee, and the leg immediately became numb and cold. Embolectomy was performed, the medial approach to the popliteal artery being used as described by Fiolle and Delmas. A clot, extending upwards for several inches from the bifurcation of the popliteal artery, was removed, and the wound was sutured and patched with gelatin sponge. Operative courses of "Etamon" and papaverine were administered. The leg recovered apart from an ulcer on the heel, which was later successfully skin grafted by Dr. Basil Riley, and the patient was discharged from hospital on December 6, 1949.

Penetrating Wound of the Rectum.

DR. T. E. WILSON presented a boy, aged nine years, who had been admitted to hospital on October 22, 1948, with a history of having impaled himself on a piece of iron piping while playing on a swing. On examination, he had a semi-circular laceration about one inch long, involving the anus and lower part of the rectum. From this a deep wound approximately three inches long extended up the right side of the rectum. With the patient under general anæsthesia it was found that the lower part of the rectum and the anal canal were completely divided. There was no doubt that the whole of the external sphincter was torn and the laceration extended into the *levator ani* muscle. As there was considerable bruising of the muscle and other tissues, the devitalized portions were excised, but no attempt was made to reconstruct the lower part of the rectum and anal canal. The wound was left open and was packed with "Vaseline" gauze. A left inguinal colostomy was then performed. Healing of the perineal wound was obtained from below and was delayed in order to produce firm scar tissue. The wound was completely healed after seven months. It was hoped that as the scar tissue formed the separated edges of the bowel would be drawn together, and that appeared to have occurred. The boy had good control over his bowels, which was probably due mainly to the action of the pubo-rectalis muscle, but there also appeared to be some sphincteric action of the external sphincter muscle. His colostomy opening was closed after the perineal wound had healed, and he was discharged from hospital a fortnight later with the abdominal wound firmly healed and with his bowels functioning normally.

Vagotomy and Gastro-Enterostomy.

Dr. Wilson's second patient was a man, aged sixty-four years, who for some years had complained of epigastric pain about two hours after meals. That pain had been relieved by antacid preparations, but for the five weeks prior to his admission to hospital it had become more severe and he obtained less relief from the antacids. During those five weeks he had also complained of nausea and vomiting and of constipation. On examination, he was pale and somewhat drowsy. His tongue was dry and coated. His abdomen was soft, there was slight tenderness in the epigastrium and loins, and splashing was audible in the stomach. X-ray examination after a barium meal showed very little emptying of the stomach, which was dilated and low in position; it varied between periods of atony and violent persistalsis. After the dehydration and the salt depletion had been overcome by means of intravenous infusion, a laparotomy was performed on June 7, 1949. There was complete obstruction of the pylorus due to scarring about a penetrating ulcer of the posterior aspect of the pylorus. In addition, there was a large mass of adhesions around the pylorus. Because of the patient's general condition and the fixity of the ulcer, it was decided to perform a gastro-enterostomy and vagotomy instead of a gastrectomy. About an inch of both vagal trunks and their branches were removed. After the operation his stomach was kept aspirated for forty-eight hours, and during that time nothing was given by mouth. Small drinks were then allowed, and the amounts were gradually increased. During convalescence he developed phlebitis of the right leg and cystitis, but by July 28, 1949, he was fit for discharge from hospital. His insulin test meal result then showed complete achlorhydria, and bile was present in each specimen of the gastric juice.

Total Gastrectomy.

Dr. Wilson's third patient was a man, aged seventy-one years, who had been admitted to hospital complaining of vague indigestion for many years. For two months he had complained of attacks of constipation associated with colicky abdominal pain and followed by attacks of diarrhœa. During the past few months he had lost five pounds in weight. His appetite was good until three weeks prior to admission, but he had been unable to drink more than a glass of liquid at a time for the past two years. Despite his age he had not noticed any symptoms suggestive of cardiac insufficiency. There was no family history of gastric, colonic or other neoplasms. On examination of the patient his colour was good and his general condition had not greatly deteriorated. There was an easily palpable, hard, mobile mass about one inch in diameter in the left hypochondrium. No enlargement of the liver was detected; and on rectal examination, apart from a mucosal prolapse and hæmorrhoids, no abnormality was detected. His hæmoglobin level was 13·6 grammes *per centum*. On November 9, 1949, an upper mid-line incision was made, with the patient under general anæsthesia given by Dr. Munro, and the mass in the left hypochondrium was found to be an extensive carcinoma of the greater curvature of the stomach. Several lymph glands in the omenta and in the root of the mesentery were enlarged and hard, but the liver contained only one suspicious nodule; this was very vascular, about a quarter of an inch in diameter, and it was thought that it might quite easily be a hæmangioma. After mobilization of the left lobe of the liver, the whole of the stomach, the greater and lesser omenta, the spleen, and the terminal inch of the œsophagus were removed *en bloc* together with the associated lymph glands. The duodenal stump was closed with two rows of continuous catgut sutures followed by a layer of interrupted cotton sutures. The first loop of the jejunum was drawn up in front of the transverse colon and the end of the œsophagus anastomosed to its distal limb just below its apex. A continuous suture of catgut was used for the mucosal layer, and that was followed by interrupted catgut sutures for the muscle layer and then by an outer row of interrupted cotton sutures. The apex of the jejunal loop was fixed to the diaphragm with several sutures. An enteroanastomosis was performed between the two limbs of the jejunal loop. Drain tubes were inserted down to the site of the œsophago-jejunal anastomosis and down to the duodenal stump. The wound was closed with interrupted through-and-through silk sutures. After operation a Ryle's tube was inserted into the œsophagus and was aspirated half-hourly for the first five days. During that time nothing was given by mouth. Fluids were replaced by intravenous injection. Penicillin injections were given for seven days. Apart from an attack of unconsciousness on the morning after operation and some difficulty with micturition for the first few days, convalescence was satisfactory. The tubes were removed on the second day. There was no drainage from the tube down to the œsophago-jejunal anastomosis, and there was only very little blood-stained discharge from the tube down to the duodenal stump. That ceased the day after removal of the drain tube, and the wounds firmly healed. On the fifth day he was allowed one ounce of citrated milk hourly, and thereafter the amount and type of food were gradually increased. At the time of the meeting he was having four ounces of food and fluids half-hourly. He had suffered from some diarrhœa following the operation, but that was much less. The hospital pathologist, Dr. Gatenby, had reported the presence of a cauliflower-like tumour situated on the mucosal surface of the lesser curvature of the stomach at its mid-length. The tumour was 4·0 by 3·0 by 2·0 centimetres in size. The remainder of the stomach wall showed diffuse thickening throughout with possibly some carcinomatous infiltration of the attached omentum. Two firm lymph glands were located in the attached mesentery. Microscopic examination of sections showed the tumour to be an adenocarcinoma. The piece of stomach wall and omentum examined contained a diffuse infiltration of carcinoma cells. The two lymph glands contained no evidence of malignant involvement.

(To be continued.)

VICTORIAN BRANCH NEWS.

The Medical Secretary of the Victorian Branch of the British Medical Association announces that Mr. Russell Grimwade, C.B.E., B.Sc., has been elected a complimentary member of the Victorian Branch in recognition of his munificent gifts to medical education and research in Victoria.

Special Correspondence.

LONDON LETTER.

By Our Special Representative.

"Why so Large Cost, Having so Short a Lease."

The most consistent financial feature of the National Health Service has been the regular presentation to Parliament of Supplementary Estimates to pay for mistakes in forecasting. A medical economist some years ago prophesied that the scheme would cost £500m. a year, rising probably to a much higher figure. He was ridiculed and called an alarmist, but time has shown his wisdom as the following figures show: 1948-1949 (nine months) estimate, £150m. + supplementary £58m. = £208m.; 1949-1950 estimate, £261m. + supplementary £98m. = £359m.; 1950-1951 estimate, £393m. To these totals must be added the amounts drawn from the national insurance fund and local rates which bring the 1949-1950 grand total to £416m. and the estimate for 1950-1951 to £450m. What is the reason for this? *The Times* feels that "throughout the service there are divisions of responsibility almost calculated to foster waste"; one authority approves expenditure and another pays. There are no effective checks on many sources of outlay and "Whitehall has found no means, short of depriving these bodies of all autonomy, of deciding whether demands are reasonable or excessive". Some of the sums paid for last year are as follows, the estimated expenditure being given in parentheses: dentists £48m. (£30m.), sight-testing and spectacles £25m. (£14), chemists £35m. (£20m.), and the final bill for hospital and associated services is about £50m. above what was estimated. Only the amount paid to the general practitioners and the outlay by local authorities have come close to the original estimates. The specialists and consultants will not know how some of them stand till certain grading anomalies are settled. The general cost of the service has received a good deal of prominence lately both in and out of Parliament in view of the last supplementary estimate of approximately £100m. In his budget speech last April the Chancellor of the Exchequer laid down that no further supplementary estimates would be considered in the coming financial year except in special cases such as, for example, "major changes of policy". *The Spectator* under the heading "Chancellor Canute" sets out Sir Stafford Cripps's dictum of April, 1949, as well as his statement of a few days ago that "it is necessary to call a halt to further development" of the Health Service and "we must regard the estimates for the coming year as a ceiling beyond which we must not be carried", and then comments acidly "it is a pitiable retreat behind jargon to try to excuse this figure which has been reached through accident, irresponsibility, overspending and miscalculation, by calling it a ceiling".

In the House of Commons the Minister of Health, Mr. Aneurin Bevan, took the line that any criticism of the cost was an attack on the Health Service as such. The Ministry of Health has issued no reports comparable with other spending departments, but a study of the figures available shows the Minister's contention to be inaccurate. The annual cost of the service in 1948-1949 was 125s. 2d. per head of the population, but had risen to 171s. 9d. in 1949-1950. For the chemists' bills for the two years the estimates were short 28% and 41%, for dentistry 63% and 36%, and for eye service 84% and 42%. Mr. Bevan felt that there must be a closer liaison between the Government and local units of hospital administration—in short more central control. He admitted some economies were necessary, and his comment on a racket in proprietary medicines produced a warm reaction in the association concerned. He felt also that the manufacturers of glass and dental goods had been far from helpful. He said little about the men working the service, but as *The Times* commented, "it seems strange that the average doctor's net reward should come to about £1530 a year, while the dentist should receive—at least while the boom lasts—about £2300". Though the hospital estimates are submitted to Parliament through the Ministry of Health, they are compiled in the first instance by the Hospital Management Committees and are consolidated by the Regional Boards before reaching the Ministry. It might be thought from the size of the supplementary estimate that much of it would be spent on the provision of extra hospital beds, equipment and other permanent features. This was not so, for, as Dr. Charles Hill pointed out in a maiden speech, only 5% was for reequipment, the remainder was to meet day-to-day expenses: incidentally

this speech was well received and commented on. He reached the heart of the problem when he drew attention to "the crucial issue of the priority of social services in relation to limited resources" and said a choice or a compromise must be made "between hospitals and houses, clinics and schools". It is stated that the original demand by the Regional Boards was for £163m., but this had been reduced to £39m. That this reduction had been passed on to the periphery is illustrated by the case of one hospital management committee which had spent a year planning the requirements for the area it controlled: it asked for £92,000 and was rather disgruntled at receiving £5000. This committee caters for a population of 178,000, has about 1100 beds occupied, 650 patients, including 174 tuberculosis cases, awaiting admission, and over 300 beds empty owing to shortage of nurses. The last straw was when it was instructed to close its isolation hospital and send patients with infectious diseases to a hospital some forty miles away.

Admission to hospital is becoming increasingly difficult. Overworked doctors try to get more patients in than formerly and, as a leading surgeon wrote recently, "when everyone can demand hospital care as a right, those who have once secured admission are loath to leave until they are, in their own opinion, as fit as they were before". A coroner has pointed out that the greatest difficulty is with elderly people, often more in need of care and attention, rather than much specific treatment. This official spoke most feelingly on the subject and felt that, as he saw it, there were now fewer hospital beds but more secretaries and clerks than formerly. The complaint has been made that space previously used for patients has been taken up by extra administrative staff. A doctor writing in a lay paper suggested that much of the greatly increased costs were due to the variety and scope of medical services now freely available, and, to a certain extent, necessary. A brother practitioner, in a later issue of the same journal, admits this, but, like the coroner above quoted, stressed the extra office staff, group secretary, administrative officers, supplies officers, appointment clerks ("who do fairly well what the out-patient sister used to do admirably") and hosts of typists to send out reports and minutes of committee meetings.

In October last year the Prime Minister announced that a charge of not more than one shilling was to be made on most prescriptions. To date nothing more has been heard of this, but on being pressed, Mr. Bevan said that the proposal would be dealt with in the coming budget. Difficulties will arise as to what is the definition of a prescription, who is to collect the money, and who is to be exempt from the tax. Some sort of means test will have to be devised and will not be easy or popular. Is a married man, with no children, but on a low wage, to pay more, less or the same as another man on a higher wage but with a family to support? The present position of the Health Service is admirably reviewed in the *British Medical Journal* (March 18, 1950, pages 656 and 664), and one writer accurately and succinctly sums up as follows—not only has "the Ministry of Health lost control of those responsible for running the Health Service, but the Treasury has lost control of the Ministry of Health". After a discussion on possible economies it is suggested that some charge for medical services rendered is the most effective and equitable way to deal with the problem and "the time has come to discuss, not whether the charge should be imposed, but the best way of imposing it".

Correspondence.

EXCORIATION OF SKIN AROUND COLOSTOMY OPENINGS AND THE LIKE.

Sir: Your journal has recently contained some most interesting articles on diagnosis and treatment of carcinoma of the colon and rectum, in which the words "caecostomy", "colostomy" *et cetera* have been used freely. But there is a problem which has taxed my mind for some time—and possibly the mind of some other colleague—namely, the prevention of excoriation of skin surrounding such an opening of bowel onto skin surface.

The use of an amphoteric hydroxide, that is, one which will neutralize both base and acid, presented itself, and so Wyeth's "Amphojel" was applied to the neighbouring skin surface. No account was taken of the flavouring agent, the immediate result was a great increase in pain, and the treatment was abandoned.

Later, with the aid of a chemist, aluminium hydroxide was incorporated in a cream containing an antiseptic and a local analgesic—with kaolin added to improve the consistency. "Lanette Wax SX", being water-miscible, was used as a base for the cream.

The result was as follows:

℞

Aluminium hydroxide	30 grains
"Monacrin"	0·5 grain
"Chloretone"	5 grains
Kaolin	30 grains
"Lanette Wax" base	to one ounce

This was smeared sparingly around a caecostomy some days after operation when the skin had become very red and painful, but only mild relief was experienced. It was found that a thick application over two or three inches of skin surface at the time of each dressing gave an excellent result. There was relief of pain as well as an improvement in local skin condition.

The cream was used after a suprapubic cystostomy, again with gratifying results.

Private practice does not give sufficient scope for an extensive clinical trial of such therapy, but if there is someone who has struggled with this difficult and painful problem who is willing to try it, then my letter is justified.

Yours, etc.,
N. L. Stephenson.

Campbelltown,
New South Wales,
March 29, 1950.

ASSOCIATION OF HEPATITIS AND CHICKENPOX.

Sir: The association of hepatitis and chickenpox is reported in this case. Mr. McK., aged thirty-three years, became ill on December 9, 1949, with fever, headache and malaise. A fortnight previously his daughter had been ill with a scabby rash over the body and scalp, which was said by a chemist to be chickenpox. On examination, the father had a temperature of 100° F. and slight reddening of the throat. The following day he was slightly jaundiced, and a papular rash was noticed on his chest and abdomen. His urine was darker than usual and contained a trace of bile. On December 12 the rash had become generalized, and showed the typical central vesicles of chickenpox. He was definitely jaundiced, his liver was enlarged to two or three fingers' breadth, and his spleen was palpable to two fingers' breadth. His urine was a deep golden colour. Over the next few days the jaundice cleared, and a week later his liver and spleen were no longer palpable, and his rash was disappearing. He made a complete recovery. Presumably in his case, the patient suffered from two diseases, or more likely, suffered from a hepatitis caused by the varicella virus.

Yours, etc.,
David Pitt, M.R.A.C.P.

12 Collins Street,
Melbourne,
March 21, 1950.

Obituary.

CYRIL CHARLES MINTY.

We are indebted to Dr. Kenneth Smith for the following appreciation of the late Dr. Cyril Charles Minty.

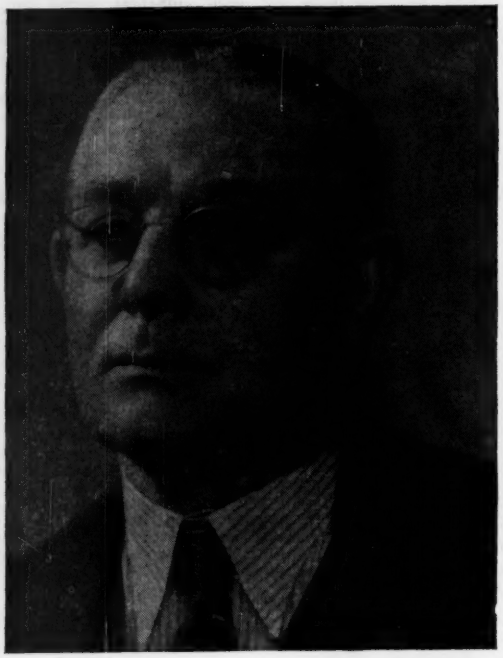
The sudden death of Dr. Cyril Charles Minty, M.C., on Monday, January 23, 1950, but a short month after his appointment as Principal Medical Officer, robbed the Repatriation Department of a very loyal and efficient officer, the ex-members of the fighting services of a friend ever-zealous in their true interests, and the community of one who gave generously of his special talents.

Cyril Charles Minty was born in North Sydney on April 29, 1892, and was educated at the Sydney Church of England Grammar School and the University of Sydney, graduating M.B., Ch.M. in 1915. Rugby football and rowing were his pastimes while at school and university.

After a short term as resident medical officer at Toowoomba General Hospital he enlisted in the first Australian Imperial Force and reached Egypt in early 1916. There he was attached to the 15th Field Ambulance, with which unit he went to France and served till the beginning of 1918. Then he was promoted major and transferred to the 2nd Australian Casualty Clearing Station. His gallant service

with the bearer section of the ambulance was recognized by the award of the Military Cross in late 1917 after the battles of that period. It was my privilege to take over the command of that ambulance early in 1918, and I can vouch for the esteem in which he was held by men and officers alike. Minty remained with the 2nd Australian Casualty Clearing Station during the whole of 1918 and was returned to Australia for demobilization early in 1919.

After a short period with the Repatriation Department in Sydney, he commenced general practice in Murrumburrah, a country town in New South Wales, but soon sought fresh fields, joining the Tongan Medical Service in 1920 and continuing there until 1925. Dr. S. M. Lambert, in his book "A Doctor in Paradise", tells of giving an anæsthetic to the junoesque Queen of Tonga while Minty rapidly and efficiently performed a small operation. Returning to Sydney, intending to set up in general practice in a northern suburb, he was persuaded by Dr. V. Benjafield—then the senior medical officer of the Repatriation Department there—to accept a temporary appointment. The result was that



Minty stayed on in the service and when opportunity offered sought and was appointed to the position of senior medical officer in Queensland. One of the reasons prompting him to seek transfer to Queensland was the health of his family. He took Brisbane to his heart and was its staunch supporter through thick and thin. Of his work as senior medical officer in Queensland one cannot speak too highly; his worth was recognized as much without as within the departmental service. When the Queensland Medical Board instituted a register of specialists Minty was granted recognition as a physician.

Early in 1946 Dr. Minty was appointed to the position of deputy principal medical officer at the headquarters of the Repatriation Commission, his main duties being connected with the transfer of the large military hospitals to the department. The considerable travelling and long hours demanded by this work, coming on the top of the heavy burden he had borne as senior medical officer in Queensland, placed a great strain on him, but he never spared himself. After the take-over of the hospitals Dr. Minty was actively concerned with the inauguration of the training schools for nurses, both female and male, in Sydney, Melbourne and Perth. He was most eager to see a similar school in Brisbane, but many factors caused delay.

Denied the opportunity of service with the second Australian Imperial Force and despite the heavy burden of his position as senior medical officer in Queensland, Dr. Minty took over the task of giving lectures to nurses in training. In 1942, 1943 and 1944 he gave the series of lectures to the nurses of the Mater Misericordiæ and associated private hospitals. He also lectured to first-aid classes of the Saint John Ambulance and took an active part in the air-raid measures in his suburb.

There were other causes to which he gave sustained and energetic personal service. He took a special interest in physiotherapy and was president of the Queensland board of the Australian Physiotherapy Association from 1943 to 1946. He was consequently a member of the board of studies at the University of Queensland. Dr. Minty also took an active share in the work of the Red Cross Society, being chairman of the welfare and handcrafts section and a member of the divisional council. To all these causes he gave the same inspiring personal service which so influenced all with whom he came in contact. This does not end the tally of his activities, as he was for years a prominent member of a study group of private practitioners in Brisbane. He was an omnivorous reader, quick to grasp essentials.

Dr. R. A. G. Malcolm, writing from Brisbane, states: "It seems hard to me now that one could have taken such a man for granted during his lifetime. I know of no other medical man who could talk to any specialist on his own subject and not have to concede anything."

Dr. Minty at all times took a keen interest in the British Medical Association. He was associated with Branch Council activities from 1943, and in 1945 became a full member of the Council. He was soon selected to be chairman of committees—a sure guide to the esteem in which he was held by his colleagues. He was the representative of the Council on the Queensland Council of Social Agencies' board of studies. On his reelection to the Council in 1946 he was elected honorary treasurer.

Dr. H. W. Horn writes: "Though his tenure of office was short, his charming personality and his ability and readiness to give service had won for him the highest esteem and friendship of all his fellows. His courtesy in debate was remarkable—he was at all times a gentleman and as such we remember him. Now that he has gone we can do no more than pay silent tribute to the memory of an honoured friend."

Dr. Harold R. Love in a letter to me wrote: "He has left behind many sincere friends by whom he will be long missed."

On his transfer to Melbourne it was only natural that his interest in the new school of occupational therapy should be sought. He readily gave his services as a member of the school council and in particular as the medical member of the selection committee for students desiring admission to the course.

Dr. Minty's recreations were reading, sailing and fishing—sailing in a small open boat of his own building with his son or friends, seeking out the spots where one could cast a line after gathering the bait from its native habitat. He had built a very comfortable cottage at Southport, and it was the short week-ends spent there that enabled him to sustain his manifold activities. It was my good fortune to spend a few such hours with Cyril and his wife at Southport, and we had looked forward to the repetition of these simple pleasures in the years to come. It was indeed a great privilege to have his friendship. To his widow and son—worthily following in his father's footsteps—we can but extend our sincere sympathy. They surely have proud memories to sustain them in their sad loss of husband and father, who died in the fullness of his powers, esteemed, respected and honoured by colleagues and associates.

HUGH ALTON CHANDOS WALL.

We regret to announce the death of Dr. Hugh Alton Chandos Wall, which occurred on April 8, 1950, at Coraki, New South Wales.

WILLIAM KELYNACK DALE.

We regret to announce the death of Dr. William Kelynack Dale, which occurred on April 8, 1950, at Collaroy, New South Wales.

ERNEST JOEL BAXTER.

We regret to announce the death of Dr. Ernest Joel Baxter, of Springwood, New South Wales, which occurred on April 12, 1950, at Sydney.

Congress Notes.

AUSTRALASIAN MEDICAL CONGRESS (BRITISH MEDICAL ASSOCIATION).

THE Executive Committee of the Seventh Session of the Australasian Medical Congress (British Medical Association) to be held at Brisbane, Queensland, from May 27 to June 3, 1950, has forwarded the following information for publication.

A Correction.

In the "Congress Notes" published in the March 25 issue of this journal, it was stated under "Section of Radiology" that Dr. Gordon Rich, of Christchurch, New Zealand, was appointed Honorary Secretary of this Section in place of Dr. J. F. Gillogley. This information is incorrect and its submission to the Editor of the journal in this form is regretted. The correct information is that Dr. W. Gordon Rich, of Christchurch, New Zealand, has been appointed Vice-President for New Zealand of the Section of Radiology and Radiotherapy and Dr. H. Masel has been appointed Honorary Secretary of this Section in place of Dr. Gillogley (resigned).

Registration of Members.

The reception room will be open for the registration of members from Friday, May 26, until Saturday noon, June 3, except from 12 noon on the Saturdays and on Sunday, May 28. Local members and visitors who have arrived in Brisbane are urged to register on Friday, May 26, and Saturday, May 27, so as to lessen the congestion on the following Monday.

Congress Dinner.

Some members have not understood that the congress dinner is for congress members and guests only, and not for wives or relatives of members. It is hoped to arrange other entertainment for wives of members on the night of the dinner, Thursday, June 1.

Accommodation.

As no more hotel accommodation is available, an enthusiastic subcommittee of doctors' wives has been formed for the purpose of arranging private accommodation in the homes of doctors and their friends.

Entertainment.

Another subcommittee of doctors' wives, which is equally vigorous and enthusiastic, has been formed for the purpose of arranging coordinated entertainment of the visitors. Dr. B. L. W. Clarke has been coopted to the Entertainments Committee.

Transport.

Air Travel.—In previous Congress Notes it was stated that Australian National Airways would allow an extra 10 pounds of luggage. Trans-Australia Airways and Ansett Airways will also allow a similar concession—making 45 pounds free of charge by these three air companies.

Vice-Presidents of Congress.

The following additional persons have been made vice-presidents of congress: Sir Victor Hurley, President of the Federal Council; Dr. A. J. Collins, representative nominated by the New South Wales Branch; Dr. Robert Southby, representative nominated by the Victorian Branch; Dr. Allan B. Wilson, representative nominated by the Western Australian Branch; Dr. J. Cairney, Director-General of Health, New Zealand.

Trade Exhibition.

An official visit to the Trade Exhibition will be made at 9.30 a.m. on Monday, May 29.

United Service Club.

The President of the United Service Club has generously offered honorary membership to all members of congress. This should be a great boon to many members as this club is situated in a very fine building on Wickham Terrace overlooking the city.

DISEASES NOTIFIED IN EACH STATE AND TERRITORY OF AUSTRALIA FOR THE WEEK ENDED APRIL 1, 1950.[1]

Disease.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia.	Tasmania.	Northern Territory.[2]	Australian Capital Territory.[2]	Australia.[3]
Ankylostomiasis	•	..	..	..	..	..	..	..	..
Anthrax	•	..	..	..	..	..	..	..	..
Beriberi	•	•	..	•	•	•	..	•	..
Bilharziasis	•	..	..	..	..	..	..	..	..
Cerebro-spinal Meningitis	2	..	2	..	..	..	..	..	4
Cholera	..	..	..	..	..	..	..	..	..
Coastal Fever(*a*)	•	•	..	•	•	•	•	•	..
Dengue	•	•	•	•	•	•	..	•	..
Diarrhœa (Infantile)	..	..	5	..	..	..	..	..	5
Diphtheria	10	10	7	..	3	..	..	..	30
Dysentery (Amœbic)	•	..	..	..	..	..	..	..	..
Dysentery (Bacillary)	•	..	12	..	4	..	..	..	16
Encephalitis Lethargica	..	..	..	..	1	..	..	..	1
Erysipelas	•	•	•	..	•	•	..	..	..
Filariasis	•	..	..	..	..	..	..	..	..
Helminthiasis	•	..	•	•	•	•	•	•	..
Hydatid	•	..	•	•	..	•	..	..	..
Influenza	•	•	•	..	•	•	..	•	..
Lead Poisoning	•	•	..	•	•	•	•	•	..
Leprosy	..	..	..	..	..	..	..	..	..
Malaria(*b*)	•	..	2	..	..	..	..	..	2
Measles	•	•	•	..	•	•	..	..	..
Plague	..	..	..	..	..	..	..	..	..
Poliomyelitis	15	3	..	36	..	..	..	..	54
Psittacosis	•	..	•	..	•	•	•	•	..
Puerperal Fever	2	2	..	..	..	..	..	..	4
Rubella(*c*)	•	•	..	•	..	•	..	..	..
Scarlet Fever	27	13	1	13	2	1	..	..	57
Smallpox	..	..	..	..	..	..	..	..	..
Tetanus	•	1	1	•	1	•	•	•	3
Trachoma	•	..	•	•	•	•	•	•	..
Tuberculosis(*d*)	24	14	15	4	14	7	..	..	78
Typhoid Fever(*e*)	..	..	..	..	..	..	..	..	..
Typhus (Endemic)(*f*)	1	..	4	..	2	..	..	..	7
Undulant Fever	..	..	..	..	..	..	..	..	..
Weil's Disease(*g*)	•	•	..	•	•	•	•	•	..
Whooping Cough	•	•	•	3	•	•	.	.	3
Yellow Fever	..	..	..	..	..	..	..	..	..

[1] The form of this table is taken from the *Official Year Book of the Commonwealth of Australia*, Number 37, 1946–1947. Figures in parentheses are those for the metropolitan area.
[2] Figures not available.
[3] Figures incomplete owing to absence of returns from the Northern Territory and the Australian Capital Territory.
• Not notifiable.
(*a*) Includes Mossman and Sarina fevers. (*b*) Mainly relapses among servicemen infected overseas. (*c*) Notifiable disease in Queensland in females aged over fourteen years. (*d*) Includes all forms. (*e*) Includes enteric fever, paratyphoid fevers and other Salmonella infections. (*f*) Includes scrub, murine and tick typhus. (*g*) Includes leptospiroses, Weil's and para-Weil's disease.

Naval, Military and Air Force.

APPOINTMENTS.

THE undermentioned appointments, changes *et cetera* have been promulgated in the *Commonwealth of Australia Gazette*, Number 18 and 19, of March 30 and April 6, 1950.

AUSTRALIAN MILITARY FORCES.

Citizen Military Forces.

Eastern Command: Second Military District.

Royal Australian Army Medical Corps (Medical).—2/52118 Major E. H. Hipsley is appointed from the Reserve of Officers and is borne supernumerary to the authorized establishment of Majors, with pay and allowances of Captain (at his own request), 31st January, 1950. To be Captain (provisionally), 20th February, 1950: 2/61535 Keith Gordon Watson, 2/127014 Francis Harding Burns and 2/127805 Anthony Proust.

Reserve Citizen Military Forces.

Royal Army Medical Corps.

5th Military District.—The resignation of Major D. R. C Wilson, M.B.E., of his commission is accepted, 18th January, 1950.

ROYAL AUSTRALIAN AIR FORCE.

Permanent Air Force: Medical Branch.

Wing Commander Charles John Newell LeLeu, O.B.E., M.B., B.S., D.T.M. and H. (1176), is appointed Honorary Physician to His Excellency the Governor-General.

Wing Commander George Charles Victor Thompson, M.B., B.S., F.R.C.S. (E) (252836), is appointed Honorary Surgeon to His Excellency the Governor-General.—(Ex. Min. No. 25—Approved 30th March, 1950.)

Medical Appointments.

Dr. Kevin Brennan has been appointed chairman of the Patent Medicines Committee, pursuant to the provisions of Section 3 of the *Health* (*Patent Medicines*) *Act*, 1942, of Victoria.

Dr. T. M. Webster has been appointed Government Medical Officer at Gatton, Queensland.

Australian Medical Board Proceedings.

QUEENSLAND.

THE undermentioned have been registered, pursuant to the provisions of *The Medical Acts*, 1939 *to* 1948, of Queensland, as duly qualified medical practitioners:

Chapple, Ian Lewis, M.B., B.S., 1950 (Univ. Queensland), Penlington Street, Rockhampton.

Markwell, John Walter, M.B., B.S., 1950 (Univ. Queensland), 82 Yabba Street, Ascot, Brisbane.

Meyers, Rodney Ian, M.B., B.S., 1950 (Univ. Queensland), 639 Sandgate Road, Clayfield, Brisbane.

McAvoy, Daniel Patrick, M.B., B.S., 1950 (Univ. Queensland), Fosbery Street, Windsor, N.3, Brisbane.

McEniery, Myles Joseph, M.B., B.S., 1950 (Univ. Queensland), Primrose Terrace, Red Hill, W.1, Brisbane.

Nash, Stanley Allan, M.B., B.S., 1950 (Univ. Queensland), 202 Hale Street, Petrie Terrace, Brisbane.

Nelson, Robert Newman, M.B., B.S., 1950 (Univ. Queensland), 15 York Street, East Ipswich.

Reye, Edward Franz, M.B., B.S., 1950 (Univ. Queensland), Hyde Road, Yeronga, Brisbane.

Robinson, John Edward, M.B., B.S., 1950 (Univ. Queensland), 20 McIlwraith Street, Auchenflower, Brisbane.

Russell, Alexander, M.B., B.S., 1950 (Univ. Queensland), Gretna Green, Southport, Queensland.

The following additional qualifications have been registered:

Brunckhorst, Alfred Michael, 114 Russell Street, Toowoomba, Diploma of Ophthalmology, 1949 (Univ. Melbourne).

Mowat, John Kenneth, 500 Sandgate Road, Clayfield, Brisbane, M.S., 1950 (Univ. Queensland).

McPhee, Ian Gavin, Inchcolm, Wickham Terrace, Brisbane, M.S., 1950 (Univ. Queensland).

Nominations and Elections.

THE undermentioned have applied for election as members of the New South Wales Branch of the British Medical Association:

Toakley, Natalie, M.B., B.S., 1950 (Univ. Sydney), 53 Roslyn Gardens, Elizabeth Bay.

Nelson, Norma Marjorie, M.B., B.S., 1950 (Univ. Sydney), 59 Kangaroo Street, Manly.

Diary for the Month.

APRIL 26.—Victorian Branch, B.M.A.: Council Meeting.
APRIL 27.—New South Wales Branch, B.M.A.: Branch Meeting.
APRIL 27.—South Australian Branch, B.M.A.: Listerian Oration.
APR. 28.—Queensland Branch, B.M.A.: Council Meeting.
MAY 2.—New South Wales Branch, B.M.A.: Organization and Science Committee.

Medical Appointments: Important Notice.

MEDICAL PRACTITIONERS are requested not to apply for any appointment mentioned below without having first communicated with the Honorary Secretary of the Branch concerned, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

New South Wales Branch (Honorary Secretary, 135 Macquarie Street, Sydney): Ashfield and District United Friendly Societies' Dispensary; Balmain United Friendly Societies' Dispensary; Leichhardt and Petersham United Friendly Societies' Dispensary; Manchester Unity Medical and Dispensing Institute, Oxford Street, Sydney; North Sydney Friendly Societies' Dispensary Limited; People's Prudential Assurance Company Limited; Phœnix Mutual Provident Society.

Victorian Branch (Honorary Secretary, Medical Society Hall, East Melbourne): Associated Medical Services Limited; all Institutes or Medical Dispensaries; Australian Prudential Association, Proprietary, Limited; Federal Mutual Medical Benefit Society; Mutual National Provident Club; National Provident Association; Hospital or other appointments outside Victoria.

Queensland Branch (Honorary Secretary, B.M.A. House, 225 Wickham Terrace, Brisbane, B17): Brisbane Associated Friendly Societies' Medical Institute; Bundaberg Medical Institute. Members accepting LODGE appointments and those desiring to accept appointments to any COUNTRY HOSPITAL or position outside Australia are advised, in their own interests, to submit a copy of their Agreement to the Council before signing.

South Australian Branch (Honorary Secretary, 178 North Terrace, Adelaide): All Lodge appointments in South Australia; all Contract Practice appointments in South Australia.

Western Australian Branch (Honorary Secretary, 205 Saint George's Terrace, Perth): Norseman Hospital; all Contract Practice appointments in Western Australia. All government appointments with the exception of those of the Department of Public Health.

Editorial Notices.

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